

2. The pathological changes noted in the molecular structure of the cord as the result of shaking, jarring, or so-called concussion of the cord, when attended by paralytic symptoms, may be due to a hæmorrhagic effusion, or be shown post-mortem, in softening and localized or limited atrophy. In cases due to hæmorrhage, the symptoms may be improved by judicious treatment, and permanent disability prevented.

3. The possibility of preëxisting neurasthenia or hysteria or fraud on the part of a claimant, should be carefully noted in forming a *diagnosis* in these cases.

4. As the question of permanent disability justifying exemplary damages is frequently raised in claims of the kind alluded to, it should be recollected in forming a *prognosis* that numerous cases are reported of recovery or marked improvement in a few weeks, and one in three years even, after the occurrence of paralysis.²⁵

5. No physician should go into court and swear that a plaintiff has had a concussion of the spinal cord, or of its nerves, unless he has proved the disturbance of the normal functions of the cord, as shown in sensation or motion or both, and that the symptoms appeared *soon* after the injury.

THE MEDICO-LEGAL ASPECT OF CONCUSSION OF THE SPINE.

Read in the Section of Surgery and Anatomy, at the Fortieth Annual Meeting of the American Medical Association, June 25, 1889.

BY HERBERT JUDD, M.D.,
OF GALESHURGH, ILL.

The facts stated in this paper are drawn solely from my own experience as a surgeon—being cases resulting from or suggested to the patient by accidents; cases in which all objective signs of injury, if any ever existed, had passed away; cases in which the question of supposed or alleged concussion of the spine were under observation from a medico-legal aspect; cases in which compensation for personal injury was sought. In bringing this paper to your notice I do so with a feeling somewhat of duty. It is plainly evident to all thinking, practical surgeons that the question of the concussion of the spinal cord, if such a disease can exist, has become a matter of *business* interest—a business transaction in which the extent of the disease or injury is to be determined in the currency of the country. I say this, because of my experience during the last twenty years, I have found but two cases of alleged concussion of the spinal cord, except those resulting

from accidents caused by actual or constructive negligence of others, and where, if an injury existed, there was an opportunity to recover compensation in money. This is the history of all, or nearly all, the reported cases, and, as stated by Erichsen, "the consideration of these cases from a medico-legal point of view is a matter of the greatest importance by reason of the difficulties with which they are surrounded and the obscurity in which they are enveloped."

It is demanded by the honest business interests of the country, by cities, transportation, mining and manufacturing companies and by all employers of laborers, that the subject of spinal concussion receive the most thorough attention at our hands. If we do not expose the cheats and frauds, and protect the deserving claimant, who can do so? That cities and corporations are robbed of vast sums of money yearly by malingerers, aided by unscrupulous legal talent, and by ignorant or dishonest surgeons we all know to be true. This subject has reached this disagreeable status. A person can claim to be injured in a collision of trains, or by other accident, no objective symptoms or signs can be discovered, nor upon close examination found. Nevertheless, such person never fails to find abundant medical testimony, and the assistance of friends which with the required legal talent, will be sufficient to successfully prosecute a suit. Especially is this true when the defendant is a corporation. Such cases can be and are based upon, and carried to the end upon only a few vague subjective symptoms, every one of which depends alone upon the word of the claimant who seeks damages.

I make these statements, not as a partisan, not as a corporation surgeon, but assert them as truths determined by my own personal experiences in cases in which I have been interested as the attending physician from the choice of the patient, in some of which the patient hoped to secure my aid in collecting damages. In some of these cases I have been sorely tried, and, I confess, for a time deceived and misled, in trying to determine whether or not any injury to the spine existed. Some of these patients, where lapse of time had proved conclusively that they had received no injury, had always been considered good neighbors, fair citizens and reasonably honest men. How, then, can we account for such cases? Until the statutes of the various States were enacted, favorable to such claimants, and the laws of fellow servants practically abrogated, symptoms were perhaps seldom deliberately and purposely manufactured, but we all know that patients are apt to greatly exaggerate their complaints. This is no doubt done in many cases unconsciously. In cases of this kind, surgeons and physicians are very liable to be deceived and imposed upon, and made the tools of designing,

²⁵Injuries to the Spine and Spinal Cord, by Herbert W. Page, F.R.C.S. Second Edition. London, 1885, p. 203, who says: "Happily the record of cases which we have been able to collect, is conclusive that recovery is usually very complete and the patient able to resume his occupation and carry on his business as well as he did before being injured."

See also, Dana, New York Medical Record, November 21, 1884, page 617.

unscrupulous men, if not well schooled in reading character and determining motives. Definite opinions of imposture in many cases must be non-medical. We may reasonably suspect imposture where there is no organic disease, and where there is obvious motive or money consideration for deception. We might perhaps remain quiet and permit our patients and neighbors to rob corporations on the ground that it does not concern us, just as we take no active part in enforcing the criminal laws of our States for the reason that we are not charged with that duty. But when we find such an increase in imaginary diseases, and find members of our own profession deceived, or deliberately aiding these malingerers, it is time for us to protest as a class. But this is not all. The facility with which damages are collected from corporations is breeding a large class of dishonest persons. It is infectious; men grow more and more to disregard the obligation of an oath. The government itself is a victim; patriotism and sentiment aid. All this tends to demoralize society, and to wrong the honest claimants for damages or for pensions.

Railroad attorneys inform me that it is now their custom to take the names and address of every passenger on a train that has met with any serious accident, because their experience is that at least one-half of the passengers who receive no injury will, before claims are barred by statutes of limitation, bring suit, and claim concussion of the spinal cord. They learn that those who receive trifling injuries recover large sums, and then comes the temptation to extort money, because they ran the same risk as those who were injured, and they quiet their consciences by assuming that although uninjured the railroad company ought to be made to pay for putting them in jeopardy. In some of these cases there may have been trivial injury, and then the conscience of the patient is somewhat relieved and he finds excuse for deception, and the temptation is so great that few seem to have sufficient moral courage to resist. Many a man who had previously had no public stain upon his character has yielded to the great temptation. Can we not do something to save these men from themselves, and to save our professional brethren from temptation, and from becoming the victims of unscrupulous malingerers?

It is no pleasant task for me to bring cases before you, but in doing so I cannot be charged with being partisan, or with having any desire to prevent any honest claimant from securing just and full compensation for all actual injuries sustained through the fault or misconduct of another. Several years ago I withdrew from all connection with the railroad company I had for some years been connected with.

The knowledge I have sought and which I think I have gained in connection with cases of

alleged concussion of the spinal cord and other cases of malingering, forbids me from remaining silent, especially when I see that the tendency of such pretended injuries or disease is to lower the standard of the medical profession, and to cause the people who see the results of these cases after the money consideration has been paid, to lose faith in the honesty and integrity, or in the skill and knowledge of physicians. I append statements of a few cases that have come under my observations; cases followed by me carefully after judgments were paid or claims settled, and in which recovery was complete in a surprisingly short space of time, without the aid of surgeons or physicians. Such cases have of recent years become so common that the medical profession is brought into ridicule, and it is not rare that intelligent men of a community assail us with the jocular information that railroad officials with no knowledge of medicine or surgery, succeed in producing speedy and permanent cures with money, where our skill and care produced no improvement in the patient.

It is said, and it is probably true, that more people are injured every year by riding in carriages and by farm work than by railroads. Yet injuries that are pure accidents, or injuries where a corporation of some character is not at fault, never result in concussion of the spinal cord. And where injuries occur through accident, for which no liability can attach, we find no malingerers.

Cases 1 and 2.—May 10, 1889, I was called to see Mr. and Mrs. C. G., aged respectively 62 and 63 years. They had been riding in a spring wagon; the horses were frightened by cars and ran away, throwing the occupants out. There were no visible wounds or fractures, but the patients were suffering from shock. I surrounded them with blankets and jugs of hot water, and after four hours of rest, sent them to their home five miles distant. These people were disciples of Hahnemann, and the next day sent for their family physician, and in a short time concussion of the spine was alleged in both cases. Damages were paid. The man is still living and in average health for one of so great an age. The woman was alive and in good health three years ago.

Case 3.—E. H. H. was walking on a sidewalk and fell into a pit eighteen inches deep, extending from a basement window. I saw him a few days afterwards. His thumb was swollen, and that was the sole objective symptom. The patient at once talked of the amount of damages he could recover, and complained of his back. This man was a hanger-on about the courts, and had some ideas as to how to proceed, and his subjective symptoms were in the line of his desire to recover a judgment. This case was properly attended by a skilled surgeon and physician, a man who stood

above reproach. Through his care and *warning* the spine recovered, although the patient's friends asserted positively that he suffered severely from concussion of the spinal cord, and other alleged doctors were called to examine the patient. The physician in charge became disgusted with the malingering and abandoned the case, and through fear of his testimony, no doubt, the concussion theory was abandoned, and the thumb grew worse. The thumb and hand were firmly bandaged, until there appeared to be permanent contraction and disfigurement. Suit was brought against the city, and good legal talent was employed, for lawyers as well as doctors can be found to work in such cases for a consideration. The city was mulcted several thousand dollars, although competent and reputable physicians testified that the sprained thumb would have recovered in a short time without treatment, if it had been left alone and not bound and poulticed. Within one month after the judgment was paid, the man, to the disgust of his friends, was at work on his bench as any shoemaker should be, and the recovery was complete. This case would have gone through the courts as an aristocratic case of concussion, instead of a plebian case of a sore thumb, had not the honorable physician who first attended the case stood in the way.

Case 4.—Concussion of the spine—so-called and treated by two reputable surgeons. Liability conceded by a railroad company. Damages estimated on the basis of permanent injury and the presumption that the man could never walk again. A complete book case. A large sum of money was paid, and a few days thereafter the man *walked* to the cars in the night time and left the State. The case was as follows: The claimant was an engineer. In making a rapid switch a rail was broken, and the engine left the track and tipped over. The fireman was killed and the engineer thrown out and stunned and bruised. His family physician was called, and he in turn called a surgeon, who justly ranks high. There were no objective symptoms. The man was apparently scared. There had been no shock. The case gradually grew to be a case of concussion of the spine, a "book case." In justice to my esteemed medical brothers who attended the case, I will say, that under the circumstances, and with death resulting to the companion of the patient, other surgeons would have been likely at that date to have been deceived. I rejoice at my escape from this case, for I sadly fear that with the experience I then had I should have believed the patient's statement and symptoms related. The recovery in this case was complete, and the man last heard from, some five years after the accident, was in robust health.

Case 5.—F. P., age 18, brakeman, habits questionable, health undermined, inclined to consumption, was on top of box car in a train under

way. Head end collision. P. jumped from train and fell some distance from the track; when found he lay in a depression in the ground on his back, with his back across a railroad tie. He was brought a distance of 23 miles to his home. He was met at the station on his arrival by the writer, four hours after the accident, and was carried home on a hand stretcher. When met at the station reaction was progressing naturally. He had received a great shock. Two hours after seeing the patient at the station, I again saw him, and being the attending physician of his father's family, and the residence being a short distance from my office, I saw him often. In this I made a mistake. There were no objective symptoms. The subjective symptoms were pain in the back over the dorsal vertebra. My directions in the first instance were to keep him warm and let him alone until I again called. The pain being apparently so great, I called to my assistance a very painstaking physician. We carefully examined the patient and found curvature of the spine, bold and distinct. We abandoned further examination at that time and regarded the case as hopeless. To our great surprise, however, during a later visit the same day we found reaction fully established, with no complaint of pain. We then again examined the back. The deformity of the spine was decidedly marked, but there was no tenderness upon pressure. We made no further examination for several days, and in the meantime I described to his mother the condition of the spine as we had observed it, and our fears of a serious injury and fatal result. This was my second mistake in this case. The information I communicated to the mother, to my surprise, did not greatly disturb her, and here my suspicions were aroused. I had long been her attending physician, and the patient was her son, and yet my opinion of her son's condition was received quite calmly. From this time on the curvature of the spine became in the minds of the family more pronounced, and the money question began to be considered. To protect myself and guard against an outrage being committed, and for the purpose of saving the reputation of the family I had so long attended, I procured skilled help and made a correct plaster cast of the whole back. I had seen lawyer's tracks. Secret meetings had been held in the back parlor, as was reported to me. I was quietly interviewed and informed that the case was all clear if I was all right. The whole family asserted to me that prior to the accident no deformity of the back had existed. I was in trouble, and consulted with the physician whom I had called in consultation, and we took such steps as we could to save ourselves from being either parties to a contemplated robbery, or from wronging the family that had trusted me. A brother of the patient, a bright boy, had some years before been my office boy. He was absent

from home at the time of the accident. When he returned he told me that his brother's back had been that way since he was a little fellow.

I devoted my labors after this to getting my patient out of bed and on to his feet, but he insisted upon the necessity of crutches. I could do no more; the spine grew worse; suit was brought because a fair and, in truth, a generous offer made by the railroad company was indignantly rejected. Foreign surgeons were called to examine the patient preparatory to testifying. I knew the case was one of malingering, and so informed the attorney of the railroad company. The surgeons who had no knowledge of the case, except as related to them by the patient and family, would readily have testified to the permanent injury and that the accident was the cause. When the case was set for trial I was so beset with difficulties that I was compelled to exhibit the cast of the back, and to urge that surgeons for the railroad company might make an examination. This was done. It is sufficient to say that Dr. J. Adams Allen cured the case within the half hour before Court convened. So thorough was the cure that a reasonable sum for the actual injury, less than the amount previously offered, was greedily accepted. On the evening of the same day the crutches were abandoned, and the afflicted spine was supporting the body of an intoxicated man.

This, gentlemen, is a true history of a case that occurred in a family that had my confidence and respect. It cost me many gray hairs.

Case 6.—A middle-aged man of nervous temperament, of health feeble for years, tripped and fell from a defective sidewalk. Accident happened in front of his own house. He immediately took to his bed. A reputable physician of long experience in general practice was called. The patient remained in bed—as was supposed—for some months, when suit against the City was brought, based upon permanent injury to the back, on account of spinal concussion. The case was on trial with the plaintiff in bed, unable to attend, as was alleged, when the writer and another physician were solicited by the plaintiff's attorney, who had faith in the honesty of the case, in order to further the ends of justice, to go and examine the plaintiff, and testify to his crippled condition. We found the man in bed, and evidently prepared for our coming. Not the slightest objective symptom could be found, but the subjective symptoms were perfectly in accord with all the recorded book cases. With careful effort we got the man out of bed. The imperfect walk, the peculiarity of gait and carriage of body, were just what a student would expect to find after having freshly read these cases and never before having seen one.

I am not naturally suspicious. I want to have faith in mankind, I want to be just, but there were many things which I cannot fully explain; the manner of the man, his guarded language, his

suspicious glances, that caused me to suspect that we were being misled, and being entangled in the trap set by designing lawyers, or credulous and ignorant physicians. I informed the plaintiff's attorney of my suspicion, which after some tests had become a conviction, of the plaintiff's dishonesty in this case. I was nevertheless called to testify, because, as I was informed, my silence after it was known that I had made the examination, would be more damaging than my negative testimony. I testified substantially that I had no positive means of knowing or satisfying any one else that the man was simulating all his symptoms, that I had never before had cause to suspect him of dishonest practices, that there were no objective symptoms or signs of injury, that the whole case depended upon the symptoms which could be simulated, and upon the statements of the patient, and upon these alone. I was asked by the attorney for the City to answer that had the accident happened within his own dooryard, or where no one would have been liable, would the symptoms have been the same? I answered, "No, I certainly think not." This testimony was, however, "ruled out" by the Court. The surgeon who made the examination with me corroborated my opinion. I did not hear the testimony of the attending physician, but was informed that he thought it improbable that all the symptoms could be manufactured; that in all such cases the physician had to rely upon the statements of the patient, and that he could not be properly treated if symptoms stated were ignored, etc. Judgment was given in favor of the cripple, and the money paid. A few weeks afterwards I was much surprised—or would have been had I believed the man's story—to see this same plaintiff riding about the city; and about five months after the trial I ought to have been again surprised beyond belief, I suppose, to see this same man, permanently crippled from concussion of the spine, put a heavy stove into a lumber wagon. To be certain that I was not mistaken in the person I went to him and shook hands with him. He is not now a strong man, and was not before his fall on the sidewalk, but, knowing him well both before and after the fall, I can state positively that he is in better health and in better physical condition than before the accident. It is certainly very unpleasant for me to record this case. I have no personal ill will against the man. He was the victim of his cupidity, and only followed the precedent set by many other "honorable men." I was recently called to his fireside to treat a member of his family.

Case 7.—A young married man, jeweler by trade, had occasion to go hurriedly to a railroad station. Unknown to this man, as he claimed, the station platform had been partially removed for repairs. The sidewalk, which was in place, had formerly terminated in the platform. The

removal of the platform left the end of the sidewalk about 14 inches above the level ground. The man stepped off the end of the walk, and fell to the ground. This is the history of the accident given by the patient—no one else witnessed it. He got up, went into the telegraph office, sent a message and returned home. The case was brought to my knowledge some weeks afterwards by the attorney of the railroad company, who desired me to examine the man together with the doctor in charge. At my suggestion, permission was granted by the attorney for the claimant to call a third physician. I called Dr. H., an old practitioner, and a man beyond reproach professionally and otherwise. I found the history of the case as stated above, and that permanent injury was claimed; that suit had been brought in one County and that the attorney who brought the suit had abandoned the case because he believed the man dishonest in his pretenses of injury. This put us on the watch and compelled a critical examination. The desertion of one attorney did not deter the claimant, nor seriously discourage him. Lawyers are no more virtuous than physicians, and a speculative lawyer was soon found ready to take the case, and a new suit was brought in another County. The physician who had been treating the case was employed specially because of a reputation he had previously acquired as an expert witness for the claimants in spinal concussion suits. The attorneys representing both plaintiff and defendant were present. This was a mistake, and was chargeable to me. No proper or satisfactory examination could be made under the circumstances. The case presented in all its aspects the appearance of chronic disease, or permanent injury; the general appearance of the patient was bad, suggesting rheumatism. Aside from this there were no objective symptoms. I stated that if his present condition was due to the fall, he was certainly injured. He finally admitted, because it was susceptible of proof, that he had repeatedly suffered from rheumatism for some years. It did not seem possible to Dr. H. and myself that this person could be in his present condition from any injury a person could sustain from the accident related. The doctor in charge of the patient and his claim stated that it was a case of permanent injury to the back. The case came to trial, concussion of the spinal cord was the plea. It was shown by his own testimony how much he had suffered and was suffering. The doctor in charge either dishonestly or ignorantly corroborated his patient, although admitting that no medicine had been used. Some of the most candid and intelligent surgeons of the State of Illinois, all members of this Association, were called by the railroad company as witnesses. The track gone over in this case was the same old beaten path, the only road possible to travel, that is the man's own word and

subjective symptoms. Book cases were rehearsed to the jury of concussion of the spinal cord by a professor of the Physio-Medical College—formerly of Cincinnati—the pale face of the rheumatic patient, the prejudice of a jury in favor of a claimant and against a corporation, succeeded, and damages were awarded to a large sum. After payment of the judgment, the patient recovered from all trouble, except rheumatism, so rapidly as to abash and disgust the innocent jurors and sympathizing friends, and finally taunts and charges of dishonesty became so numerous that the claimant felt it safer to emigrate from the County, and the doctor, who was also a druggist, has removed, but before going, instead of pleading ignorance to the discredit of his skill as a physician, admitted that it was a little scheme to get even with a soulless corporation. The claimant had not sustained the slightest injury; indeed, it is believed by the citizens of the village that he did not even fall from the sidewalk.

I will not burden you with reference to any further cases. It would be but a repetition. You have no doubt had similar cases. I have been unfortunate, it may be, in having a number of other cases brought to my knowledge, a number in excess of what might seem usual; but I have no doubt no greater number or kind, as regards the subject of concussion of the spinal cord considered in its medico-legal aspect, than have come under the observation, in the practice of a large number of those present.

If a young man can begin life with the truth visibly laid before him, and be warned of the snares set for him, and be helped to avoid deception, some of the obstacles to his honorable fame may be removed, and his path be made easier. If the young men in the profession could realize that cheats and frauds are not rare, much good might be accomplished and less harm done.

I must certainly question if there be such a disorder or injury as concussion of the spinal cord, as some of the books tell us, or describe it. I have certainly been a hard worker after the truth in this matter, and have not exaggerated the cases I have reported, and have withheld reports of other now notorious cases of pure fraud and malingering, in which honest but credulous physicians were misled, deceived, and their reputations injured.

I trust that members of the profession more skilled with the pen than I am, more capable of expressing their ideas to others, will give the subject careful study, and give their views to the public. To learn the truth these cases must be followed and observed, not only before judgments are paid, but for months afterwards. I would be happier if I could be convinced or could convince myself that I have been mistaken in all these cases, and that the remarkable cures effected apparently by juries, were really cures effected by

the kindness of Divine Providence, or by the labors of Christian Scientists.

If in my awkward way, and by my crude language I shall succeed in creating enough interest to cause others to be on their guard and to study this class of cases when damage suits are brought, I shall be content.

DISCUSSION.

DR. WM. BRODIE, of Detroit, Mich., cited two cases, in one of which his testimony was for the plaintiff; in the other, against. The jury gave the plaintiff heavy damages in both cases. Conclusions: Immediately after a man is hurt the railroad surgeon should advise the company to settle, for if injury of spinal cord has occurred the patient will continue to give evidence of his injury; and if not, the damages received from the company will prove immediate cure, and thus demonstrate that no injury had taken place. Juries cannot be made to see the difference. It is only necessary that the defence be a rich corporation. He also cited a case at Cobourg, Ontario, wherein the G. T. R. W. was defendant. The injured man recovered in less than ten days after the verdict in his favor and was married. Has been in perfect health since, although he played paralyzed for near two years, with loss of sensation in his extremities. Such perfect control did he have that neither needles nor electricity could make any observable impression upon him when applied even without his direct knowledge. Of course he was aware that he was being put to some test, and his will controlled.

DR. B. A. WATSON, of Jersey City, N. J.: Spinal concussions are not so frequent as would seem from court decisions. I have observed as the most frequent injuries following railroad accidents: 1. Hæmorrhagic infarction in lungs. 2. Lacerations of liver, spleen, lungs, or kidneys. 3. Rupture of blood vessels and bladder.

DR. CHARLES B. PENROSE, of Philadelphia, said: I think that we are all in accord with the principles expressed in the papers which we have heard to-day, and we protest against the robbery of corporations and the consequent discredit brought on our profession by supposed victims of spinal concussion.

The rarity of any serious injury to the spinal cord, unaccompanied by injury to, or lesion of, the surrounding bony or ligamentous structures, is shown by the records of large surgical hospitals, where simple spinal concussion analogous to transient cerebral concussion is exceedingly rare, if not altogether unknown.

In the Pennsylvania Hospital, where there are treated yearly about 700 cases of fracture, luxation, sprain and contusion of sufficient gravity to demand in-door hospital treatment, simple spinal concussion is one of the rarest conditions met with. And yet these injuries are produced by

falls, blows and collisions, which must cause more or less jarring of the whole body, besides the local fracture or contusion, or sprain for which the patient is admitted.

I am familiar with the details, and have examined the specimens of the very interesting case of spinal concussion referred to by Prof. Smith, as that of a sailor admitted to the Pennsylvania Hospital, who had been thrown violently upon the nape of his neck. The autopsy was made most carefully with the special object in view of determining the existence of any injury to the bones or ligaments of the spinal column, as in such cases there is always a probability that an unrecognized fracture is present, or that dislocation has taken place and been immediately reduced, so that no deformity is afterwards apparent. But in this man no fracture of bone or laceration of ligaments was found. Nor does it appear, from the nature of the accident, that any sharp flexure had occurred and produced undue tension upon the cord; nor was there any indication of hæmorrhage from the vessels of the cord or of the membranes. It seems, therefore, to be a simple case of injury or concussion and subsequent degeneration of the cord, produced by direct violence without any fracture or laceration of the surrounding structures.

Women at the menopause are frequent malingerers of spinal concussion, or spinal shock, and their nervous symptoms sometimes really deceive themselves and friends, being falsely attributed to some more or less severe injury coincident with the real physiological cause of their trouble.

I have examined two such cases, where, in court, trifling injuries were affirmed to have caused spinal concussion, and were held responsible for all the hysteroneuroses of the menopause. In one case the plaintiff was non-suited, in the other a compromise was effected. In both women all symptoms of spinal concussion probably disappeared as soon as the menopause was over.

An important point which Prof. Smith has mentioned, is the impossibility of giving a certain prognosis with regard to permanent disability after spinal injury.

An exceedingly interesting case, where recovery of muscular power occurred after prolonged paralysis from a very severe spinal injury and probable fracture, came under my observation about two years ago. The man had been a soldier, and in the battle of Cross-Keys had been struck by a bullet on the cartridge belt and had fallen backward from a height, upon the buttocks. He was not wounded by the bullet; but his back was so injured by the fall that he was immediately paralyzed and he was obliged to lay for three years on a water-bed, with paralysis of the legs and incontinence of urine and fæces.

He afterwards regained muscular power suffi-

ciently to lead the laborious life of a peddler, tramping, with his pack for twenty years subsequently, through Pennsylvania and New York. The only mark of injury now apparent is a slight prominence of the lower dorsal vertebra. He has never recovered control over the bladder and rectum, or sensation in the skin of the buttocks on the posterior aspect of the thighs.

DR. J. H. MURPHY, of St. Paul, Minn., said: Erichsen has cost the railroads thousands of dollars. He cited several cases of malingering.

DR. WM. H. PANCOAST, of Philadelphia, said: The question under discussion has two heads. First, is there such an injury as concussion of the spine, and are there malingerers who assume the symptoms. That there can be cases of concussion of the spine followed by serious consequences, I firmly believe, for I have seen them. I have seen cases where a violent concussion in a railway accident has so affected the contents of the spinal canal as to cause effusions, or such alterations of the membranes of the cord or of the cord itself, as to be followed by paralysis more or less complete. Many members of this Section of Surgery and Anatomy must, in the course of their lives, from mis-steps or other accidents, have recognized the force and painful effects of concussion. I have within the past few weeks been engaged in a medico-legal case, where a delicate lady, the wife of a physician engaged in a large and active practice, was thrown from a carriage in which they were both driving. A careless coachman driving a heavier carriage ran into them, and the collision threw her to the ground and against a wheel, with such violence that she became insensible. She has remained an invalid ever since, with marked symptoms of paralysis on one side. In neither of these cases was there hysteria or malingering.

There are malingerers, and we must be on our guard against them, and I have such faith in the honor of the members of our regular profession as a class, that I do not believe they would be parties to such a deception. I have been called as an expert in several such cases, and have sometimes settled the medico-legal questions in my office to the satisfaction of both sides. I feel assured that this learned body recognizes the existence of such an injury as concussion of the spine, and also that while the great railroads who do so much for the benefit of the country, should be protected from suits inspired by fraud and ignorance, that the great public should also have protection. I think that if corporations would give fair compensation for injuries received at their hands, through accident or the carelessness of their employes, and not insist that such injury should be proved to be permanent, that a cause exciting to fraud or malingering will be removed.

I give credit to the corporation surgeons of de-

siring to be honest, and giving a truthful scientific diagnosis from their standpoint; then why should not we also recognize the statements of the surgeon of the injured, as being inspired by the same motive, even if some one may occasionally be deceived by an ingenious and artful malingerer.

From my experience I think that very many railway injuries can be satisfactory adjudicated and the sufferers properly compensated by the judicious surgeon acting as mediator between the opposing lawyers, to the honorable satisfaction of both parties.

TWO CASES OF TUBERCULAR OSTEO-MYELITIS OF TIBIA.

Read before the North Texas Medical Association, June 12, 1889.

BY J. T. JELKS, M.D.,
OF HOT SPRINGS, ARK.

PROFESSOR OF SURGICAL DISEASES OF GENITO-URINARY ORGANS
IN COLLEGE OF PHYSICIANS AND SURGEONS,
CHICAGO, ILL.

Case 1.—In the Spring of 1888, Mr. —, æt. 40, consulted me for great and constant pain in the left tibia. I found him in a hovel, poorly ventilated, poorly warmed, and poorly lighted. The odor in the room was simply unbearable, but with burning tar in the room I examined the patient as best I could. Found him greatly emaciated, with large ulcer on left leg, several inches in length, with the presence of pieces of dead bone. He was being cared for by some of the charitable ladies of the place and consented to an operation. Assisted by Drs. Thompson and Gebhart, I proceeded to operate. After the anæsthetic was given I washed and scrubbed his leg with soap and water, then with solution of bichloride of mercury, 1:1000; wrapped his feet with towels wrung out of the bichloride solution, and also covered his body with antiseptic towels. An Esmarch bandage was applied above the knee-joint—about 6 inches—to make a bloodless operation. I then proceeded to cut down to the tibia, making an incision from near the insertion of the tendon of the patella to within a few inches of the ankle-joint. Peeled the periosteum back on both sides of the line of the incision, and then with mallet and chisels I proceeded to remove the anterior surface of the bone, finding the focus of the disease not far from the head of the tibia. I continued the use of the chisels and mallet until I thought all the abnormal material was removed, and when through I had a trough six inches or more long, half inch wide and half inch deep in some places. It was now scraped out with the sharp spoon of Simon, irrigated with solution of sublimate 1:1000. Again irrigated with solution of sublimate 1:500, and when this was through with a quantity of 1:5000 solution was used to wash out the stronger liquid. The operation by being bloodless was