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CIVIL MALPRACTICE:

A TREATISE ON

SURGICAL JURISPRUDENCE.

WITH CHAPTERS ON

SKILL IN DIAGNOSIS AND TREATMENT, PROGNOSIS IN FRACTURES, AND ON NEGLIGENCE.

BY

MILO A. McCLELLAND, M. D.

Men see clearly, like owls, in the night of their own notions, but in experience, as in daylight, they wink and are but half-sighted. — BACON.

Deep science is desirable to the man of fortune — useful science to the physician and surgeon. — SIR ASTLEY COOPER.

The first step toward improvement in any art or science, must be the faithful exposure of its wants and deficiencies. — PROF. HAMILTON.

Professional employment is not only recognized as a legitimate and substantial business of life, but it is regulated by fixed rules to ensure due diligence and skill and its appropriate reward. — SMITH *v.* HILL, 13 Ark. R. 173.

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AUG 1 3 1954

TO

MY ESTEEMED TEACHER IN SURGERY,

FRANK H. HAMILTON, M. D.,

SURGEON TO BELLEVUE HOSPITAL, NEW YORK,

AS A SLIGHT ACKNOWLEDGMENT OF THE MANY BENEFITS DERIVED FROM HIS TEACHING AND PUBLISHED WRITINGS, ESPECIALLY THOSE ON

FRACTURES AND DISLOCATIONS,

AND IN GRATEFUL REMEMBRANCE OF THE INTEREST HE HAS TAKEN IN THIS WORK,

AND TO

MADISON REECE, M. D.,

OF ABINGDON, ILLINOIS,

THE PERSONAL FRIEND, WHOSE ATTAINMENTS IN MEDICINE ARE ONLY EQUALLED BY HIS COURTESY TO PROFESSIONAL BRETHREN, THIS ATTEMPT AT USEFULNESS IN AN IMPORTANT BRANCH OF MEDICAL JURISPRUDENCE,

IS RESPECTFULLY INSCRIBED.

M. A. M.

INTRODUCTION.

THE very favorable reception of a Report on Civil Malpractice, made to the Military Tract Medical Society in 1873, encouraged me to continue collecting material for a more extended work on the same subject, should it ever be called for. From the increasing frequency of suits, for alleged negligence and want of skill on the part of physicians, especially in the West, it seems that such a compilation is now needed. Originality is claimed only for the selection and arrangement of the material. The work, I trust, will be a useful one, inasmuch as the Supreme Court decisions, upon this feature of the doctrine of Bailments, scattered as they are through numerous state Reports, are inaccessible to most legal and medical practitioners. These decisions I have collected and grouped according to their medical rather than their legal interconnection. By aid of the index, however, the legal principles may be readily referred to. Some of the decisions I have introduced by an abstract of the evidence presented at the first trial. There will also be found the history and abstract of evidence in numerous other cases, not taken to appellate courts, many of which have not been, heretofore, so published as to be accessible to either the medical or legal professions. These might well have been omitted, having no authority in law, but the questions involved in them are

likely to arise again, and they will show, to some extent, how such cases are disposed of by courts and juries. Especial care has been taken to report the cases faithfully and accurately. In the abstracts of evidence in the Nisi Prius cases, only the salient points are given; the spirit, not always the exact language, is aimed at. As such I respectfully submit it to the kind consideration of lawyers and physicians. If legal gentlemen should observe any diversity of opinion among the so-called "expert" witnesses in these cases, they should remember what Lord Coke said in respect to the same question in their own profession, that it is "*Hominis vitium non professionis.*" As yet we have no court of ultimate appeal, in Medicine, hence unanimity in opinion is not at all to be looked for.

In the Chapters on Diagnosis and Treatment, I have done what it would seem always safe in courts to do. I have laid standard medical authorities under contribution for testimony upon the principles under discussion, rather than given my own opinions, based upon my recollection of their testimony from a former reading; or where I have advanced opinions of my own I have quoted them as confirmatory of those opinions. This testimony I have tried to report correctly and to give credit for whenever due.

The Chapter on Prognosis, with accompanying Tables, will show what has and has not been accomplished by treatment in different countries and by different surgeons. For the plan of the Tables and the larger number of the cases cited therein, I am indebted to Professor F. H. Hamilton, who kindly placed his labors at my disposal. How freely I have availed myself of these, the subsequent pages show. I present in this Chapter, also, Professor Sayre's Report on the use of Plaster of Paris in the treatment of fractures, with the ac-

companying Tables of Dr. Van Wagenen, which Dr. Sayre thoughtfully sent me in duplicate, thus obviating the labor of copying. I present Dr. Sayre's Report in full, except his illustration of the muscles in retaining broken fragments in apposition. I do this for the reason that he is an eminent authority in surgery and one of the ablest advocates of this form of dressing. The papers of Dr. Bryant, Med. Record, Vol. VI. p. 313, and Dr. St. John, Am. Jour. Med. Sci., July, 1872, should be also studied in this connection.

My thanks are due to many other gentlemen, both legal and medical, for the interest they have taken in the work, by furnishing use of libraries, Reports and Tables of Cases, Records of Trials, &c.

My brother, Thomas S. McClelland, of the Chicago Bar, assisted me in the compilation of the Supreme Court decisions cited herein. For the statement of legal principles, except as to those embodied in opinions of the Courts, I alone am responsible. These principles, however, have been examined by several gentlemen of the legal profession, and no adverse criticism having been offered, I assume that they are correct in theory — that is to say, as legal propositions.

The Rev. C. W. Leffingwell, D. D., of St. Mary's School, Knoxville, Ill., and Capt. S. Adams Lee, formerly of the U. S. Navy, kindly assisted me in reading proof. To them and all others who have encouraged me in my work, I extend my most cordial thanks.

KNOXVILLE, Ill., *October* 27, 1876.

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CIVIL MALPRACTICE.

CHAPTER I.

DEFINITIONS. — ETHICAL MALPRACTICE.

MALPRACTICE may be divided into three kinds, namely: 1. "Ethical Malpractice," in which persons claiming to be medical men bring suits against physicians or against Medical Societies, for alleged insults to their professional dignity. 2. "Civil Malpractice," in which patients bring suits for damages, which they have or think they have sustained through want of skill, or from negligence on the part of their attending physician. 3. "Criminal Malpractice," in which the people or State is made the plaintiff.

Suits under the first classification are usually instituted by "quacks." This term, in the medical profession, is applied to any one, whether he has any professional education or not, who violates §§ 3, 4, Art. 1, Ch. II., of what is known as the Code of Ethics of the American Medical Association, which declares it "to be derogatory to the dignity of the profession to resort to public advertisements, or private cards, or handbills, inviting the attention of individuals affected with particular diseases; publicly offering advice and medicine to the poor gratis, or promising radical cures; or to publish cases and operations in the daily prints, or to suffer such publications to be made; to invite laymen to be present at operations, to boast of cures and remedies, to adduce certificates of skill and success, or to perform any other similar acts. These are the ordinary practices of empirics, and are highly reprehensible in a regular physician. Equally derogatory to

professional character is it for a physician to hold a patent for any surgical instrument or medicine; or to dispense a secret *nostrum*, whether it be the composition or exclusive property of himself or of others. For, if such nostrum be of real efficacy, any concealment regarding it is inconsistent with beneficence and professional liberality, and if mystery alone gives it value and importance, such craft implies either disgraceful ignorance or fraudulent avarice. It is also reprehensible for physicians to give certificates attesting the efficacy of patent or secret medicines, or in any way to promote the use of them."

So, also, the term is applied to those practitioners of the "Specific School," those "transcendental pathologists," who substitute for anatomy, physiology, and common sense, a dogma, upon which to build an enlightened experience, who consider as signs of the same disease, and as possessing equal value, the following symptoms: "Insatiable thirst, pallor of the face, scrofula, sweating of the head after sleep, burning in the palms of the hands, attacks of suffocation, furuncles, vomiting of blood, hiccough after eating or drinking, cutting pain in the rectum while at stools, absence of venereal desire, unbridled lusts, somnolency during the day after eating, paroxysms of anger bordering on mental alienation, tears frequently at the slightest causes," &c., &c.; and who assure us in their therapeutics, that the administration of the 1,000,000,000,000,000,000,000th of a grain of carbonate of lime — common chalk — produces no less than a thousand and ninety symptoms, from which I select the following: "On the fifth day, itching on the border of the eyelids; thirteenth day, *in the evening*, on going out, unsteady gait; seventeenth day, ardent venereal desires, especially during a walk *before dinner;* twenty-first day, great heat at the extremity of the big toe; twenty-eighth day, itching at the anterior part of the glans penis, after urination,"[1] and so on, *ad nauseam*.

As this volume may fall into the hands of some who are

[1] Hahnemann, Treatise on Chronic Diseases.

not familiar with the assumptions of these refined Pathologists and Therapeutists, I will be pardoned for presenting a few more flowers culled from their choicest conservatory, Jahr's Manual of Medicine, "translated from the German by authority of the North American Academy of the Homœopathic Healing Art." As the result of the attenuations and shakings certain of the remedies receive — and I may say here, most of them are taken from the regular arsenal — we have, "Drawing pain in *hollow* teeth, extending to the eyebrows; cracked *upper* lip; stitches in *hollow* teeth, *when biting*; pain and pungency in the *elbow*, which does not allow one to stretch or exert the arm; pungency in the knee and bend of the knee; inflammation and swelling of *one half* of the nose (which side the record saith not); torpor and stiffness of one *half* of the tongue (probably the same side as of nose); blood-blisters on the *inside* of the *upper* lip; loss of appetite, chiefly for bread and tobacco-smoking; rending and stinging in corns; red itching spots on the *shinbone;* tingling in the *points* of the toes; perspiration on the hands, and *between* the fingers; stitches in the ankle *when stepping out;* a voluptuous tickling on the *sole* of the foot, *after scratching a little*, making a *man* (used in the sense of totality, — men, women, children?) almost *mad;* ulceration of *big* toe, with a prickling pain; an itching, tickling sensation at the *outer* edge of the *palm* of the *left* hand, which obliges the person to scratch."

Chamomile is followed by the following *mental* effects: "Hypochondriac paroxysms of anxiety, as if the heart would break; restlessness, with anxious groaning and tossing about; irritable readiness to weep, with *whining* and *howling*, frequently on account of *old* or imaginary offences."

Chloride of sodium — common salt — is followed by more disastrous effects: "Melancholic sadness, with searching for many *unpleasant* things; much weeping, and *increased* by consolation; sorrowfulness about futurity; anxiousness, also *during* a thunder-storm, *chiefly* at night; indolence, aversion to talk, joylessness, hasty impatience, and irritability; easily

frightened; hate of *former* offenders; inclination to laugh; great weakness of memory and forgetfulness; awkwardness," &c., &c.

Sulphur is no better in its mental influence, if anything worse. Its administration is followed by "sadness and dejection; melancholy, with doubts about his soul's welfare (suggestive); great inclination to weep frequently, alternating with laughing; inconsolableness, and reproaches of conscience about every action; attacks of anxiety, *in the evening;* nocturnal fear of spectres; philosophical and religious reveries; insanity, with imagination as if he were in possession of beautiful things and in abundance of everything." But enough of this drivelling nonsense. What else can we call them but "quacks" — ignorant pretenders to knowledge they do not possess?[1]

I present the following case as bearing somewhat upon the question, and clearing up very decidedly one phase of it.

Ex parte Paine.[2]

Motion for mandamus against the Orange County Medical Society, commanding them to admit the relator as a member.

"He being a resident of that county, and having a diploma from the regents of the university as doctor of medicine, presented it to the society; but they refused to admit him as a member on two grounds: 1. That he had offered by public advertisement to practise either on the 'Allopathic' or 'Homœopathic' system, as the patient should wish; and declared his intention to do so to a committee of examina-

[1] The law makes no difference between the different Schools of Medicine. To call a person, lawfully practising as a physician, a "quack," is in effect charging him with a want of the necessary knowledge and training to practise the system of medicine which he undertakes to practise. *White* v. *Carroll*, 42 N. Y. 161. It has been held that the professional services of a "medical clairvoyant" are "medical services" within the statute. See, also, *Corsi* v. *Maretzek*, 4 E. D. Smith, 1.

[2] 1 Hill, 665, N. Y.

tion appointed by the society; having, moreover, actually practised on the latter system. 2. That he had spoken disrespectfully of the society, and published a slanderous newspaper article concerning the members and a resolution passed by the society."

These grounds were shown by affidavits to be true. And it was further shown that the homœopathic system of practice is contrary to the established system as followed by regular members of the medical profession.

Dr. Paine had, before the application and rejection in question, been some time in practice in the County of Orange, and notice had been served on him pursuant to 1 R. S. 448 (2d ed. §§ 1, 2), requiring him to apply for and receive a certificate of admission as a member of the society.

By the Court, COWEN, J. It is not denied that Dr. Paine held a proper license to practise; and the question is, whether such a man, residing and practising in a county of this State, is by law entitled to admission as a member of the county society, although they believe him to be a quack, and it is known that he is in an open quarrel with them, and has slandered them professionally.

The statute seems to impose a general obligation upon the society to receive every regularly licensed physician resident in the county, as a member (*vide* 1 R. S. 448, 2d ed. §§ 2, 16, 24, 25); and does not in terms allow the society to raise any objection, though it sanctions his expulsion for gross professional ignorance or misconduct, or when his conduct or habits are immoral. To effect his expulsion, specific charges must be preferred to, and established before the judges of the county court. 1 R. S. 448, 449, 2d ed. And on conviction he may be expelled and declared to be disqualified forever after; or he may be suspended from practice.

It is sufficiently established in proof that the relator has wilfully departed in his practice from the approved and established rules of the medical profession; in short, that his practice, in the opinion of the society, is habitually empirical.

This appears to be, in their opinion, the result either of gross ignorance in his profession, or it amounts to gross misconduct; and therefore they refuse to admit him. It is insisted by his counsel that he must be admitted at all events, and that if the society desire to prevent his practising, they must prefer charges and proceed to a trial in the form prescribed by the statute. I incline to think they are not bound to do this, but may prior to the admission of the candidate, in all cases, inquire and satisfy themselves whether any of the causes exist for which they might prefer charges against him; and on concluding in the affirmative may refuse to admit him as a member. To be sure, they ought to make a clear case on our being moved for a mandamus.

But if I am mistaken in supposing the society have a right to inquire and refuse, I yet feel quite clear that, under the circumstances of this case, we ought not to compel the admission of Dr. Paine into a society whose feelings he has outraged, and whose rules of practice he has openly set at defiance. We are enabled to see to a moral certainty that, though the candidate should be received, he would either be expelled or suspended in the regular way, for the very cause of refusing to admit him.

Seeing this, it would be indiscreet to interfere. On application for a writ of mandamus, we must sometimes exercise a discretion; and it has been said, that even where the officer of a corporation has been irregularly removed, yet if the court see good cause for removal, this prerogative writ shall not go to command a restoration. The reason given is, that by proceeding in a regular way, another motion would follow for the same cause. *Rex* v. *The Mayor, &c. of Axbridge*, Cowp. 523; and see per Ashhurst, J., in *Rex* v. *The Mayor, &c. of London*, 2 T. R. 181, 182.

In the case before us, it is fully in proof by professional witnesses, men who understand the subject, that Dr. Paine is practically a quack in his profession. This implies gross ignorance, or a gross misconduct, or both. We see that, if admitted, he should be expelled by the judges of the county

court. And in the exercise of a proper discretion upon such proof, if on no other ground, we ought not to interfere.

Motion denied.

The People, ex rel. Bartlett v. *Erie Co. Med. Soc.*, N. Y., 1 Tiffany, is a case similar to the above, in which the appellate court held that a mandamus is the appropriate remedy to compel a county medical society to admit an applicant entitled to membership.

Further, a licensed physician, having the prescribed qualifications, cannot be excluded from the franchise on the ground that he did not conform to the conventional rules of the society at a period antecedent to his application.

The code of medical ethics, adopted by the by-laws of a county society, is obligatory on members alone, and its non-observance, previous to membership, furnishes no legal cause either for exclusion or expulsion.

When a party, having a clear presumptive title, claims admission to the exercise of a corporate franchise, the right of immediate expulsion shall be clear and unquestioned to justify the rejection of the claim.

The general policy of the law is opposed to sharp and summary judgment, where the party whose rights are involved has no opportunity to be heard.

RAMADGE *v.* RYAN.[1]

(C. C. Pleas Eng., Trinity Term, 1832.)

LIBEL. The plaintiff sought to recover damages for the following article, which appeared in the London Medical and Surgical Journal, a periodical publication conducted by the defendant : —

" *Tweedie* v. *Ramadge.* Dr. Ramadge was in attendance on a case of typhus. The patient, a young lady, was bled from the arm on a Friday, and eight dozen (ninety-six) leeches applied to the head and neck. On Saturday both temporal

[1] 9 Bingham, 333.

arteries were opened; the patient fainted, and the apothecary, who was likewise in attendance, left her. The nurse brought her round with wine and water. On the Sunday another dozen leeches were applied, and immediately she became delirious, when Dr. Tweedie's advice was requested by the relatives. Dr. Tweedie having spoken apart with Dr. Ramadge, addressed Mrs. Reynolds, the sister of the patient, and said, that having attended the family before, he should be happy now to give his assistance to the young lady; but that Dr. Ramadge's conduct in late correspondence with John Long had been such that no medical man of respectability could call him in, or consult with him, without injuring himself in the eyes of his brethren. That he bore no private pique against Dr. Ramadge; he believed him indeed to be clever; but his character, as regarded the above transaction, rendered it imperative for all medical men to decline acting with him, and Mrs. Reynolds must, therefore, choose which she would intrust.

"Dr. Ramadge replied in great anger that he was a gentleman by birth, education, and profession, but that Dr. Tweedie was neither. . . . . Dr. Tweedie answered him by turning coolly on his heel and walking out of the room. Dr. Tweedie was retained, and cured the patient by exactly opposite treatment. Dr. Ramadge, it is said, is frequently at supper with John Long. Lancet. — '*Dr. Tweedie has honorably and faithfully discharged his duty to his medical brethren; and we hope every one else will do the same. We are well aware who it is, and a medical man to boot, that makes the trio in these family suppers. Let him be warned in time: he takes upon him to defend this nefarious quack and man-slaughterer in the face of the whole profession. Let him take warning, or we will not spare him.*'" — Ed.

The defendant pleaded the truth of the allegations in justification, and issue was joined upon his plea.

The alleged libel, with the exception of the eight lines in italics, had been copied from a periodical journal called The Lancet, the article in which was headed, "Result of upholding Quacks."

For that article the plaintiff brought an action against Wakley, the editor of The Lancet, who pleaded only the general issue; defended himself; and upon the trial of his cause, on the day preceding the trial of the present cause against Ryan, got off with a verdict for ¼*d.* damages.

Upon the trial of the present cause, the defendant's counsel, after showing under his plea of justification what had been the treatment of Mary Bullock, and what had passed upon the interview between the plaintiff and Dr. Tweedie, proposed to call Mr. Brodie, an eminent surgeon, to say whether he would meet the plaintiff in consultation; but the chief justice held such evidence to be inadmissible. It was then proposed that Mr. Brodie should be asked whether Dr. Tweedie, in refusing to consult with the plaintiff, had honorably and faithfully discharged his duty to the medical profession. The chief justice thought the question ought not to be put, and the plaintiff obtained a verdict for £400.

Taddy, Serjt., moved for a new trial, on the ground that Mr. Brodie's testimony ought to have been received upon the same principle as the opinion of scientific men upon matters of science (*Beckwith* v. *Sydebotham*, 1 Campb. 116; *Severn* v. *Olive*, 3 Brod. & Bing. 72); or of foreign lawyers on questions of foreign law; because the jury must be ignorant of the conventional rules and etiquette established in each profession, which can be only known, or only accurately known, by members of such profession. None, for example, but members of the bar can appreciate the infamy attendant on obtaining practice by courting and feasting attorneys; so that it is only from the estimation of his brethren that the public can judge whether an individual conducts himself uprightly in those matters in which he is most concerned. The evidence excluded, therefore, was indispensable for the defendant's justification.

Tindal, C. J. Witnesses skilled in any art or science may be called to say what, in their judgment, would be the result of certain facts submitted to their consideration; but not to give an opinion on things with which a jury may be

supposed to be equally well acquainted. If in this cause any specific rules of the medical profession had been given in evidence, the defendant perhaps might have been allowed to show that the plaintiff, by violating those rules, had rendered himself unworthy of the countenance of his brethren. But the question here was, whether a physician, in refusing to consult with the plaintiff, had honorably and faithfully discharged his duty to the medical profession.

The answer to that might depend altogether on the temper and peculiar opinions of the individual witness, and was a point on which the jury were as capable of forming a judgment as the witness himself. On this ground, therefore, there is no reason for granting a rule for a new trial.

Taddy then sought to obtain a rule on the ground that one of the jurors had come to the trial predetermined to give heavy damages against the defendant. As to which he read an affidavit of two members of the College of Surgeons, who were present at the trial of the cause of *Ramadge* v. *Wakley*, that at the conclusion of that trial a person, whose name was not then known to them, came up and expressed his surprise at the small amount of damages which had been given to the plaintiff in that cause, and at the same time said, "I shall be on the jury to-morrow, and I will take care that the verdict does not go that way," or words to the like effect; that one of the deponents then remarked, that the individual addressing them had not yet heard any evidence; to which the individual replied, that "he had heard quite enough, and that his mind was made up as to the verdict he should give;" that on the following day, June 26, 1832, the deponents were again respectively present in the Court of Common Pleas at Westminster, and that when the cause of *Ramadge* v. *Ryan* was called on for trial, the deponents saw the individual who had on the previous day made the before mentioned remark to them sitting as a juror on the trial of that cause; that having reason to believe the individual in question was John Miller Hart, of Mornington Crescent, they went to his residence on the 31st of October, and having ob-

tained an interview, asked if he had been one of tne jurymen on the trial of this cause; he said, he admitted that he had; that he had conversed with the deponents at the door of Westminster Hall, on the 25th of June, on the subject of the verdict in the cause of *Ramadge* v. *Wakley*, and recollected the remark he then made; that he supposed deponents had come to him about a new trial in *Ramadge* v. *Ryan;* and that he knew something that would get a new trial, or words to that effect.

Other affidavits disclosed that Hart had been struck off the roll of attorneys for fraud and misconduct.

The court were referred to *Wynn* v. *Bishop of Bangor*, 2 Com. Rep. 601, which was an action of ejectment in which a view had been granted. On making the view, one of the showers for the plaintiff having made certain observations upon the subject in dispute, one of the jurors observed that by what they had seen, they should soon determine the dispute; and afterwards, on the day before the trial, he said that the plaintiff was a neighbor, and right or wrong he would give it for him. The court held, that though that might form a ground of challenge, yet it was proper to allege the matter as cause for a new trial, and granted the rule. The case of *Herbert* v. *Shaw*, 11 Mod. 111–118, was cited against the application, but overruled by the court. In *Dent* v. *Hundred of Hertford*, 2 Salk. 645, a new trial was granted, on an affidavit that the foreman had declared that plaintiff should never have a verdict whatever witnesses he produced.

A rule *nisi* having been granted upon the matters disclosed in the affidavits, —

Wilde & Spankie, Serjts., showed cause upon an affidavit in which the expressions alleged to have been used by Hart at his house on the 31st of October were altogether denied, and in which Hart explained the conversation in Westminster Hall by deposing that his words were: "Well! I am surprised at such small damages; had I been on the jury I certainly should have given very heavy damages. I am upon the jury to-morrow." That no other words escaped him;

and that he never said, "I will take care the verdict shall not go that way to-morrow."

They referred to *Onions* v. *Naish*, 7 Price, 203, where the Court of Exchequer refused to grant a rule for setting aside a verdict on an affidavit of the failing party, stating that one of the jury was a relation of the successful party, and that they were in habits of friendship and intimacy together, and particularizing various instances and expressions, on the part of the juryman, of partiality and prejudice; and offered an affidavit from the foreman of the jury, on the ground, that though in general an affidavit from a juryman, as such, cannot be received, yet here, where the conduct of one of the jurors was impeached, it ought to be open to the other jurors to show that the verdict was not occasioned by the practice of that individual.

The court, however, refused to receive this affidavit, observing that the affidavits on the other side applied only to the conduct of the juror before he entered the jury-box.

Taddy, in support of his rule, urged that the expression which Hart admitted he had used, "I am on the jury to-morrow," if spoken, as it doubtless was, in a significant way, showed such a predetermination as was incompatible with fair trial, and sufficiently accounted for the disparity between the two verdicts.

TINDAL, C. J. If the ground of application for a new trial disclosed by the affidavits on the part of the defendant had remained unanswered and uncontradicted, I should have thought the court justified in making this absolute; for it would go to create a prejudice against trial by jury if verdicts were to be the result of previous determination; and expressions such as those imputed to the juror Hart would have been a good ground of challenge if proved to the extent to which they have been alleged in the affidavit. In *R.* v. *Cook*, 6 St. Tr. 337, expressions of this nature were deemed so improper that the juror ought not to be asked whether he had used them, but that they ought to be proved by such as heard them spoken. If, therefore, the expres-

sions imputed to Hart had remained unanswered, this cause must have been referred to a new jury. But the conversation on the 31st of October is denied altogether, as is also a portion of that alleged to have taken place on the 25th of June; and the effect of the residue appears to me to be sufficiently answered by Hart's affidavit. This is not a case, therefore, in which the existence of such injustice has been established as to call for a new trial, and the precise ground of application having been answered, the rule must be discharged.

GASELEE, J, concurred in thinking that the affidavit in support of the motion had been answered.

BOSANQUET, J. The rule *nisi* was properly granted, upon the affidavits then before the court; but I think they have been answered, as far as regards the application for a new trial. The situation of Hart, as an attorney struck off the roll, must be put out of our consideration, because the defendant need not have left him on the panel; but the expression imputed to him, that "he would take care the verdict should not go the same way," falls within the principle of the case in Salkeld, and if unanswered, would have afforded ground for a new trial, but Hart denies having used that expression, and the sting of accusation is answered.

ALDERSON, J. This rule was obtained on an affidavit that one of the jurors had, before he entered the jury-box, made up his mind as to the verdict he should give, and if that charge had remained uncontradicted, the rule must have been made absolute. But the whole sting of the charge is answered, and though the expressions which the juror admits himself to have used were imprudent, yet, his entertaining a strong opinion on a former verdict is not incompatible with his giving a correct verdict on the case which was to come before him.

There was no reason why he should speak in a significant way to mere strangers, and there is nothing in the language which he admits which would lead one, independent of manner, to assume that he had prejudged the verdict he was himself about to give. *Rule discharged.*

Mertz *v.* Detwelier.[1]

Per Curiam. Under the circumstances of the case, evidence of the "practice of physicians in regard to consultations" was properly admitted. It had been testified that the medical gentlemen called in by the plaintiff's father had met in consultation without notice to the defendant, who was the attending physician, or desiring his presence, and they were produced as the plaintiff's witnesses. The fact that they had not extended to him the customary courtesy due to the occasion, therefore, was a circumstance, though a slight one, tending to show that their minds were biased against him.

But the measure of a physician's responsibility for his patient is not a subject of professional skill. Whether the patient's imprudence in disregarding directions led to an aggravation of the disease, may be otherwise; but it requires no medical skill to determine that a man is not chargeable with the consequences of another's acts, and the question allowed to be put belonged not so much to medicine as to morals. Besides being irrelevant, these fishing questions always contain a concealed argument which it would be improper for the witness to indorse. The answer ought not to have been received.

Of the same stamp was the testimony of the defendant's general skill, which was clearly irrelevant. It was not that, but his treatment of the particular case, with which the jury had to do. If the latter was notoriously bad, of what account would be his abstract science, or treatment of other cases? It may be said that his general qualifications might serve to shed light on the propriety of his practice in this particular instance; but it is light which would be less likely to lead to a sound conclusion than to lead astray. The jury, assisted by opinions of medical witnesses, would be better able to judge of the treatment from the treatment itself, than from the more remote consideration of the defendant's

[1] 8 Watts & Sergeant, 376.

professional reputation, which was consequently not the best evidence of which the case was susceptible. The nature and properties of the powders employed by the defendant in this particular instance were subjects of medical inquiry, and proper for the medical witnesses as experts. The questions put to them on that head ought to have been answered. But the matter which was probably most prejudicial to the plaintiff, in the estimation of the jury, was the evidence to prove the declarations of his *prochein amy*, before he had acted as such, that "the doctors would help him through," or that "the doctors would work it through." The plaintiff would have little chance, if the testimony of his most material witnesses were put down to the account of professional jealousy. But according to the testimony, these declarations were made before the writ was purchased, and when the *prochein amy* had no other concern in the contest than every father has in the welfare of his child; and that they were not competent for that reason is stated as an elementary principle in Greenleaf's Evidence (p. 211), a book whose accuracy is surpassed only by its usefulness. As admissions or confessions, therefore, these declarations were incompetent.

Judgment reversed and venire de novo awarded.

The subject of consultations is not well understood by persons outside of the profession. Among practitioners of the different schools consultations cannot be held, for the reason that there is a radical difference between them either as to the medicines to be used or the manner of using them; hence, if the practitioners be honest in their several beliefs, no good can accrue to the patient, — this being the sole object. The Code of the American Medical Association, in treating of the duties of physicians in consultations, says: "A regular medical education furnishes the only presumptive evidence of professional abilities and acquirements, and ought to be the only acknowledged right of an individual to the exercise and honors of his profession. Nevertheless, as in consultations the good of the patient is the sole object in

view, and this is often dependent on personal confidence, no intelligent regular practitioner, who has a license to practise from some medical board of known and acknowledged respectability, recognized by this association, and who is in good moral and professional standing in the place in which he resides, should be fastidiously excluded from fellowship, or his aid refused in consultation, when it is requested by the patient. But no one can be considered as a regular practitioner or a fit associate in consultation, whose practice is based upon an exclusive dogma, to the rejection of the accumulated experience of the profession, and of the aids actually furnished by anatomy, physiology, pathology, and organic chemistry.

"In consultations, no rivalship or jealousy should be indulged; candor, probity, and all due respect should be exercised toward the physician having charge of the case.

. . . . . .

"All discussions in consultation should be held as secret and confidential. . . . . .

"A physician who is called upon to consult should observe the most honorable and scrupulous regard for the character and standing of the practitioner in attendance. The practice of the latter, if necessary, should be justified as far as it can be consistently with a conscientious regard for truth, and no hint or insinuation should be thrown out which could impair the confidence reposed in him, or affect his reputation. The consulting physician should also carefully refrain from any of those extraordinary attentions or assiduities which are too often practised by the dishonest for the base purpose of gaining applause, or ingratiating themselves into the favor of families and individuals."

It will be seen from the above that many causes intervene to forbid consultations among physicians, all resolving themselves into the one leading principle, — that of not conducing to the welfare of the patient.

CHAPTER II.

CIVIL MALPRACTICE. — ADJUDICATED CASES OF ALLEGED MALPRACTICE IN THE TREATMENT OF FRACTURES NEAR THE SHOULDER-JOINT.

CIVIL MALPRACTICE may be either active or passive. It is active when a certain course of treatment is adopted and followed which is not sustained by authority; it is passive when those things, in the treatment, are omitted, which should have been done, in order to obtain a result approximating to perfectness.

In declarations the plaintiff usually alleges that the defendant is either ignorant, that is unskilful; or negligent, that is careless; or that he is both. In some States, when the plaintiff fails to sustain the allegation, damages are assessed against him for such false allegation, and as a compensation to the defendant for his necessary costs. *Walsh* v. *Sayre*. This is only just and right, and it is to be hoped that all of our States will soon have the same equitable laws in their statutes.

The law on responsibility of physicians and surgeons is well laid down in Hilliard's Law of Torts, 2d ed. vol. i. p. 253. As it covers pretty generally all the points alleged in cases of malpractice, I will transcribe it in full. He says: "Under some circumstances, a physician or surgeon will be held very strictly answerable for the consequences of his professional action or neglect. Thus it is held, that where medicine is administered to a slave without the consent of his owner, the physician is responsible for all the evil consequences which result from his act. So an action lies against a surgeon for gross ignorance and want of skill, as well as for negligence

and carelessness; though if the evidence be of negligence only, which was properly left to the jury, and negatived by them, the court will not grant a new trial because the jury were directed that want of skill alone would not sustain the action; but, in general, a physician or surgeon is responsible only for *ordinary* or *reasonable* care and skill, and the exercise of his best judgment in matters of doubt, not for a want of the highest degree of skill. It is the duty of the patient to coöperate with his professional adviser, and to conform to the necessary prescriptions; but if he will not, or under the pressure of pain he cannot, he has no right to hold his surgeon responsible for his own neglect. The implied contract of a surgeon is not to *cure*, but to *possess* and *employ*, in the treatment of a case, such reasonable skill and diligence as are ordinarily exercised in his profession by thoroughly educated surgeons; and in judging of the degree of skill required, regard is had to the advanced state of the profession at the time. So the law requires of a *dentist* a reasonable degree of skill and care in his professional operations; and he will not be held answerable for injuries arising from his want of the highest attainments in his profession. So a physician is expected to practise according to his professed and avowed system, where there is no particular system established or favored by law, and no system prohibited. Hence, in an action for malpractice, evidence to prove that the defendant's treatment of the case was according to the *botanic* system of practice and medicine, which he professed and was known to follow, is admissible."

What constitutes "*ordinary* or *reasonable* care and skill," and what is proof of it? It is not easy to say. There is no standard, as yet, of comparison, by which the question can be governed. We have, in medicine, no court of ultimate appeal. Each individual case must stand upon its own merits. Time and place must be taken into consideration. Reasonably, as much cannot be expected of physicians in remote localities, where he is cut off from opportunities of improvement, as from physicians living in communities where oppor-

tunity is afforded of seeing disease and accidents under more varied forms ; nor from this latter class should as high a degree of attainments be exacted as from physicians connected with large hospitals, or who reside in large cities. If it were otherwise, we should find but few physicians, except in populous communities. The very favorable rule has been laid down in the law, that "the least amount of skill, therefore, with which a fair proportion of the practitioners of a given locality are endowed," is taken as the criterion by which to judge the physician's ability or skill." Bouvier's Inst. §§ 1004–5.

In proof of this degree of attainment, a diploma is the best evidence ; but to be valid it must be proven that the college from which it emanated had corporate authority to grant degrees in medicine at the date of giving the degree, and, if the college of another State, its act of incorporation must be offered as proof of its authority to grant such a degree. Ordronaux's Jurisp. of Med. 26 ; *Hunter* v. *Blount*, 27 Georgia, 76 ; *Hill* v. *Boddie*, 2 Stewart & Porter, 56. It must be borne in mind, also, that courts will take no notice of the different "schools" in medicine, the term "physician" being legally assumed by any one who chooses to announce himself as a practitioner of medicine. *Sutton* v. *Facey*, 1 Mich. 243. The law recognizes all systems as legitimate ; at the same time, it requires the physician to practise according to his professed and avowed system. A departure from the received canons of a given system will be taken as a want of ordinary skill. *Bowman* v. *Woods*, 1 G. Greene (Iowa), 441 ; *Patten* v. *Wiggin*, 51 Maine, 594.

Cater *v.* Fernald.[1]

(C. C. Pleas for Strafford County, N. H.)

History. On the 26th of May, 1853, Mrs. Cater, of Barrington, rather fleshy and muscular, received an injury to her left shoulder, while laboring in a convulsion. From

[1] Boston Medical and Surgical Journal, vol. liv. p. 229.

the testimony, it seems that she had taken *cedar oil* some time in the morning of that day, for a pain in the stomach. She was, however, *enceinte*, and what the intention was in making use of this oil does not appear. In a short time after taking this substance, Mrs. C. retired to her chamber, and soon the attention of the husband was called to the critical condition of his wife. In a few minutes medical aid was sent for, and Dr. McDaniel, who lived but a short distance from the house of the plaintiff, came, administered an emetic, and awaited the arrival of Dr. Fernald, the family physician. The messenger who called Dr. F. represented Mrs. C. as "being in a fit, as very sick, and near to the point of death." She was found in a reclining position, complaining of much distress at the stomach, with nausea. She also stated to her physician that she had been in ill health for two or three weeks past, had had a violent headache during the most of that time, and had taken "cedar" for it.

It was not fully shown that the defendant's attention was directed by the patient or family, during his first visit, to the shoulder. In fact, there was no observable irregularity in the motion of the arm at this time. The whole attention of physician and family was aimed to alleviate the bodily health of Mrs. C. The next day, the patient complained of pain in the left fore-arm and hand. On examination, no depression was observable under the acromion process, on account of the great swelling and extravasation of blood. There was found to be ecchymosis over a large surface on the outer part of the humerus, which extended from within two or three inches of the shoulder-joint down to the elbow. The usual roundness of the shoulder was observed, and the depression usually attending like injuries was not seen until three or four weeks after the occurrence of this accident. Then resort was made to the usual appliances for such injuries.

DECLARATION. Defendant was the family physician at the time of the injury; that instead of an enlightened treat-

ment of the case in question, he so negligently, carelessly, and unskilfully behaved and governed himself in and about the setting, cure, and treatment, &c., &c., that the shoulder became fixed and lodged in a wrong and unnatural place, *i. e.*, it was a simple dislocation of the head of the humerus downward, and was so left.

ABSTRACT OF EVIDENCE.

Plaintiff testified, that "Dr. Fernald's attention was called to the state of the shoulder during the first visit; that Mrs. C. complained of pain in the left fore-arm and hand; that the defendant did examine the hand and fore-arm, then the spine by making pressure thereupon with his fingers; that in his examination he made the inquiry if she had a lame back, and if it hurt her in making the pressure — to which she replied in the negative. Thereupon the defendant stated the cause of pain in the arm was neuralgia."

Other witnesses agreed that Mrs. C. located all her distress and pain in the arm, and none in the shoulder. Arm and hand were bathed in mustard and vinegar. A cataplasm was placed between the shoulders (for the headache), and a liniment was left, with some pills and quieting powders, to be used in the absence of Dr. F., who resided about three miles distant from plaintiff.

Dr. Perry testified, that "he saw the plaintiff about six weeks after the injury; made such an examination as he usually makes in such injuries. The best judgment that he could form at the time was, that it was a dislocation of the humerus downwards. He told the plaintiff he thought he could reduce it then, but she refused. He did not discover any indication of fracture at that time; if so, he would not have attempted to reduce it. It is more difficult to treat a case when there is a fracture of the head of the bone, because it might be almost impossible to keep the humerus in its proper place.

"In a dislocation downwards, the arm cannot be brought down close to the body. In the course of from twelve to

twenty-four hours after an injury, there would be considerable inflammation, and in a little while the parts would be somewhat thickened. It is better to reduce dislocations soon after the injury, as delay only increases the difficulty of reduction. Ordinarily dislocations downwards are easily put in place, but sometimes other complications arise, and the contrary is true.

"Since the commencement of this court, he had again examined the shoulder of Mrs. C., and found the same state of the parts as existed at first. His opinion now is, that it is a dislocation downwards, and no fracture of the head of the humerus. He found without doubt the head of the humerus in the axilla, and it is impossible to effect a cure after this length of time.

"If any fracture existed at all, it must have been a portion of the glenoid cavity. It would, however, take a considerable force to break the joint within the glenoid cavity. He had doubts as to its integrity. The mere finding the head of the humerus in the axilla is no indication that there is no fracture in this instance. If violence enough had been used, he should suspect a fracture. When the muscles are contracted, they hold the bones so firmly, that a force applied to the outside of the arm would be likely to fracture the neck of the scapula. The piece of bone broken off would be found near the end of the humerus.

"If the arm in this case, when put in its place, would slip down again as soon as left to itself, this would indicate a fracture of the glenoid cavity, or great relaxation of the capsular ligament; or that in returning the head of the humerus, there was carried with it a portion of the torn ligament. In the early stages of the injury, the last is the most common cause. This difficulty, however, may be overcome by repeated trials to place the bone in its proper place. It would be impossible to find the fractured piece of bone, if the fracture was in the glenoid cavity.

"In the examination at this time, he found that the arm could be raised to a position nearly horizontal with the body.

Its use will gradually improve, and Mrs. C. will be enabled to perform manual labor therewith, without much inconvenience."

Dr. Townsend testified: "I have seen in the course of my practice a large number of dislocations of the shoulder-joint —those attended with fracture, and those that were not. Fracture of the glenoid cavity is of rare occurrence, and does not take place without very great and direct force, either by falling on the humerus, or from a direct blow. If a person were in a fit on a bed, and another person were holding the arms, I do not see how this cavity could be broken through. It is very improbable that a fracture would happen, either to the head of the humerus or neck of the scapula, by 'thrashing about in a convulsion.' The lower part of the glenoid cavity may be broken off; and in such a case the reduction of the arm-bone would be easier, but the motion would be less free after a cure. I have had cases supposed to be fracture of this cavity, but have had no difficulty in keeping the parts in apposition by the proper application of pads and splints. I remember a case of dislocation and fracture, either of the glenoid cavity or anatomical neck of the humerus. Dr. J. C. Warren had the charge of it. I cannot distinctly recollect the result. There was a difficulty, however, in keeping the bones in their place.

"I have made two examinations of this shoulder to ascertain the present state of the parts: one in the Massachusetts General Hospital, and one during the session of this court. It appears to me that this is a case of simple dislocation downwards. I think the neck of the scapula has not been fractured. I am sure of it. Neither could the anatomical neck of the humerus have been fractured, because it would have remained in the glenoid cavity; and besides, I find it now lodged in the axilla. If the head had been fractured, I could discover it. My opinion is, that no such fracture ever existed in this case. The shoulder in its present condition is incurable, because a bony adhesion has taken place between the humerus and scapula. The head of the bone is

rather below the neck of the scapula, between it and the ribs.

"Ordinarily, there is no difficulty in coming to a correct diagnosis in regard to the fact of a dislocation. There is generally pain and numbness in the fore-arm and hand. Simple dislocation is discoverable by the sight alone. Its most sure sign is, the inability to put the hand on the top of the head.

"In regard to the question of reduction, the sooner it is done the better. Swelling and inflammation would delay the attempt to reduce. A dislocation may be reduced after three months, perhaps longer. That is the longest time I have known in my practice. When a dislocation has existed twenty-one days, the effusion of lymph into the socket would be a very slight impediment to the humerus staying in its place. If extension had been applied after three weeks in a case of fracture, and, after three weeks more, extension were again applied, no bony adhesion would be found."

Cross-examined. "The external appearances of a fracture of the glenoid cavity, or of the anatomical neck, are not different from those of a simple dislocation. The arm would hang close by the side, and would be shorter in case of fracture. I believe the arm would be shortened, if dislocated into the axilla; but, on my honor, I cannot tell. In this case it is impossible to state exactly where the head of the humerus is. Lapse of time would render it also difficult to say whether there has been a fracture or not. There may have been one, or there may not. But if the arm-bone, when put back into its place, would not stay there, it indicated a fracture of some sort, because the symptoms could not be explained otherwise. In addition, if there were crepitus, it would overrule any opinion I can form in examination of the case now."

The testimony of the other experts for the prosecution does not materially differ from that given. They all agree that it was a simple dislocation, and to account for the shortening of the arm, they say the action of the muscles about

the shoulder drew the neck of the humerus in between the neck of the scapula and ribs, — a state, in the opinion of the reporter of the case, entirely untenable and contrary to authority.

"The prosecution also endeavored to show that, if there was a fracture, it was made in the attempt to reduce the dislocation by 'Jarvis's Adjuster.' Dr. Townsend's testimony on this point is as follows: 'The power of this adjuster is very great. We have considered it, in the hospital, as a dangerous instrument, and it has not been used with us for five or six years. The pulley is used instead. I should infer, if there was a snap in the shoulder at the time of reduction, that a fracture must have been produced by the use of this great power.'"

FOR DEFENDANT.

"The statement of the defendant was, that his attention was not called to the arm at all during the first visit, and if it had been, nothing could have been done; that when he saw Mrs. Cater the second time, the shoulder was so swollen and inflamed that it was impossible to diagnose the true state of the parts, and that it was injudicious, on account of the inflammation, to disturb the arm; that in addition to a dislocation, there was a fracture in and about the shoulder-joint, which rendered it impossible to keep the parts in apposition; that the patient complained of no difficulty in the shoulder, but located her distress in the elbow and arm; that as soon as a depression was observed below the acromion process, such appliances were used as the nature of the case demanded."

Dr. James Farrington testified: "I have been in practice as a physician and surgeon forty years, and have had a large number of surgical cases. I have seen this shoulder twice before, — once about three weeks after the injury, and once during this trial. The first time I knew of it was from the husband of Mrs. C. He informed me that his wife had injured her shoulder, and it might be out of place; that the accident happened while she was in a fit, in consequence of

her striving and thrashing about, during which he had as much as he could do to keep her on the bed. He also said that she was unaccustomed to have convulsions, and it was occasioned by taking a teaspoonful of cedar oil. I said to him, that since prosecutions were rife, I had made up my mind not to practise much more surgery. In reply to my remarks, he said he had not the slightest intention of prosecuting Dr. Fernald, or any one else, as no blame could be attached to any one; that at first the arm of his wife was very painful near the elbow, and had been all the while much swollen, and that the defendant's attention was not directed to the shoulder until a few days previous. I, however, agreed to go. This was twenty-two days after the injury. When I first saw it there was a bandage over the right shoulder, which supported the elbow of the lame limb, and also a pad under the arm. The arm hung down by the side in a manner I had never seen before in dislocations, but, from its appearance, and the slight depression near the acromion process, I judged it a simple dislocation into the axilla. I found the arm very tender and swollen, and would not bear to be handled much. Mrs. Cater informed me in regard to the same particulars as her husband did at my residence, with the addition that leeches and soothing applications had been applied to the arm in order to reduce the swelling. At first I proposed to the family to delay the attempt at reduction until the swelling and soreness disappeared. This was objected to. I then made a more thorough examination. I raised the arm up, and tried to find the head of the humerus, but could not. I was aware that it might be difficult, from the thickening about the joint of the shoulder.

"After the usual preparations, extension was made, and soon the depression was gone, and the appearance of the joint became natural. After slackening a little, I remarked, 'I believe it is in,' but soon found the soundness to disappear in taking my hand from the axilla. Again I ordered extension, and the same appearances were noticed as before.

The arm-bone came into place. On moving the arm, I felt a crepitus, like the grating of the ends of two broken bones. I pointed this out to the medical gentlemen present, and they observed the same thing. The lame arm then was moved backwards and forwards, up and down. She put her hand behind her head. All this time I felt a crepitus, and heard it. I was confident of a fracture, either of the glenoid cavity or some portion of the neck of the bone. I thought then, as I do now, that the injury was incurable. The examination of to-day confirms my opinion.

"It was agreed upon, as the most suitable treatment, to support the shoulder by a bandage, and place a pad under the arm. When this was done, the shoulder at first appeared natural and its roundness restored; but before I left, the humerus had settled down and the depression again was observed. I then remarked that the shoulder was not right, but was as well as it could be.

"Fracture of the head of the humerus might occur by falling on the shoulder, or by having a heavy weight pass over it. A piece may be broken off the glenoid cavity by a less force than is required to break the head of the os humeri.

"There may be crepitus in a simple dislocation, but not always. This is confined to the ligaments and cartilages, and is soon destroyed. It will cease by friction of the parts. I do not believe there can be a case of fracture of the glenoid cavity, or the head of the arm-bone, without the discovery of crepitus, if proper examination be made.

"In this case I do not feel the end of the arm-bone. It is far up in the axilla, under and a little inside of the neck of the scapula. The arm is shortened. This is caused by either the fracture of the glenoid cavity, or the splitting through of the head of the humerus. After this length of time, it is impossible to tell which has occurred. If there had been an attempt to reduce this dislocation five minutes after the injury, it could not have been accomplished, and the parts retained in their place."

Dr. Farrington, Jr., confirmed the above testimony in every particular.

Dr. Thompson testified: "I have been a practising physician and surgeon for thirty-four years, and have had a large number of dislocations of the shoulder-joint. I saw Mrs. Cater's shoulder, at Dover, six weeks after the injury. I pronounced it a simple dislocation downward. The arm was one half inch shorter than the other, and the head of the bone forward, and higher up in the arm-pit than usual in cases of dislocation into the axilla. I discovered no crepitus, nor any signs of a fracture at this time.

"I was asked if anything could be done for the shoulder. I replied, the only thing was to attempt a reduction, and agreed to go to Barrington the next day, with Dr. Pray, for that purpose. Accordingly I went. After giving the patient chloroform, and making the usual preparations, I attempted to reduce the dislocated bone. I made use of 'Jarvis's Adjuster.' In making a very slight extension, a faint noise was heard, like the breaking up of a bony adhesion. This attracted no attention, as it was much less than the well-known sound, often heard, on the return of the humerus to the socket. The force used was very slight, — not enough to fracture any bone. After continuing the extension a little while longer, the arm moved more freely, and went up easily into its place, and the roundness of the shoulder was restored. On slackening the extension, I found the bone to fall down, and it appeared as at first. After several attempts to reduce it, but to no purpose, we abandoned the thing altogether, being destitute of any further means to produce insensibility, and the patient complaining of great pain in the shoulder.

"At this stage, wishing to satisfy myself about the shoulder, I made some further examination, and found true crepitus, although the arm was much swollen. I wished Dr. Pray to examine the parts. He did so, and also discovered it. I not only felt it, but heard it. It caused the sensation of the fractured parts of two bones rubbing together. It could not

be false crepitus; of that I am sure. I came to the conclusion, then, that there was fracture, either of the glenoid cavity or the anatomical neck of the arm-bone, but could not say which. Both conditions are incurable.

"The next time I made an examination of this shoulder was with Dr. Pray, in the month of February, 1855. The same appearances were found, with the exception of a slight pain on motion of the arm, near the coracoid process. I was confirmed in the opinion that there was a fracture; that the cause of this pain was from a portion of the fractured bone, and that the head of the humerus was the injured part. In this connection I would say, that in neither of my four examinations have I been able to ascertain whether the head of the humerus is entire or not. My own impression is that no one can tell.

"Sometimes, in convulsions, the muscles themselves will break the bones. Frequently fractures are produced by simply falling on the floor in a fit. I think it very possible that this shoulder might be both fractured and dislocated by another person attempting to hold Mrs. Cater on the bed, especially in a convulsion where there is great rigidity and contraction of the muscular system. I was told by the family that she was in a fit when this injury was sustained."

Dr. H. G. Clark testified: "I have seen a large number of dislocations and several fractures of the shoulder-joint. Dislocations are very common and easily treated. Fractures of the socket and upper end of the humerus are very important and difficult. They are also difficult to distinguish, at times, from simple dislocations, where they are both combined. The usual fractures of the shoulder are, that of the glenoid cavity, of the acromion process, and of the head of the humerus. Sometimes there is a split of the os humeri through the anatomical neck, which is very difficult to determine.

"There are several marks of a fracture about the shoulder-joint (I speak particularly of the glenoid cavity and the head of the humerus).

"One is extensive swelling and inflammation. If the bones, when put in place by extension, will not stay there, this indicates a fracture, because in dislocations alone there is no difficulty in this respect. There is no trouble in telling when a bone is in place. If it should not remain after the steadying force is removed, but slips down, it would show that there must be some break in the region of the socket. In addition, if there is crepitus, this completes the evidence of fracture.

"True crepitus is always an indication of fracture. Indeed, it is one of the strongest evidences of it. To produce it, parts of broken bone must be in contact. Sometimes there is a false crepitus, but the rubbing together of cartilage is smoother than the grating of bones. It is true there might be cases where a person would require to repeat the rubbing to find out which kind of crepitus existed; but in any case there is no danger of mistaking the one kind for the other.

"I have examined the shoulder of the complainant to-day. After so great a lapse of time, it is much more difficult to determine what the injury was. She has received a very extensive injury, and it must have been done by a very decided force. She has a displacement of the arm-bone, and it is fixed in an unnatural position. If there is any motion between the arm and scapula, it is very slight. It seems to be more fixed than it would be if the original injury were a simple dislocation. From the position of the arm, there is evidence of a fracture somewhere about the socket. The head of the humerus is thrown forward and upward so as to be nearly where the coracoid process is. It appears as if the socket had been crushed inward and the arm driven in with it. It would be impossible to determine exactly what the injury was, without dissection. I have no doubt there was a fracture there. The position of the arm-bone seems to be incompatible with the integrity of the glenoid cavity. The piece of bone broken off appears to be carried in before the arm-bone, or it may be bent like a hinge, or drawn under the scapula, so as to be out of reach. I do not think the ana-

tomical neck has been fractured. The head of the humerus may have been split through in that direction.

"In ordinary cases of persons in middle life, it must require considerable force to produce a fracture of the glenoid cavity, — as a fall from the bed upon the floor, or a blow with a stick of wood in a person's hand. There would be marks of external injury, but it might not be visible for two or three days. There would be discoloration of the arm below the seat of injury, from one third to one half way down to the elbow. It is quite possible that such an injury might be produced in a state of spasm, by a person endeavoring to hold another on a bed, though most likely it would occur by a fall or blow on the bedstead. Such a fracture might exist from a fall on the hand. I do not know why I should suspect luxation of the shoulder-joint simply from pain in the hand and fore-arm. In some cases of fracture, there is not much pain, but rather an uneasiness, which is most apparent immediately after an injury. In simple dislocation downward, the pain is very severe, mostly in the arm-pit and down the arm. There would be scarcely any swelling until after some days. If pain should be in the shoulder, it would arrest the surgeon's attention, as being the place of injury.

"In dislocations downward, the arm is lengthened; in fracture of the neck of the humerus it is shortened, and the arm will hang by the side.

"Dislocations may be reduced after four months. I reduced one at the end of that time, in which the glenoid cavity was in a natural state, as free and clear as it ever was."

Dr. Martin's testimony coincided with that of the other witnesses for the defence. He believed, however, the injury to be dislocation and fracture of the head of the humerus.

Dr. Pray, who reports the case, states that when he first examined the shoulder (at the end of the sixth week), it "had lost its accustomed roundness. The acromion process, though unnaturally prominent, did not project as much as usual in displacements of the humerus into the axilla. The arm hung down by the side, and did not project from the

body. In fact, there was nothing that indicated a dislocation, but the slight depression below the acromion process, and that so very small as scarcely to attract notice. It was found difficult, and even impossible, to pass the fingers under and around the head of the humerus, on account of the swelling, even when extension was made. In the several examinations to find out the true state of the parts, we could not ascertain if the head of the humerus was entire or not. The inner part of the humerus occupied a place between the ribs and the glenoid cavity. As far as could be discovered, the entire head of the humerus was dislodged from the socket. The situation of the fracture seemed, to all the physicians who detected it, to be exterior to the glenoid cavity. The fracture appeared to be an inch and a half in length."

The following is the substance of the instructions of the court, SARGENT, J.:

The law requires of a man who offers his services in any profession, three things: that reasonable degree of learning, skill, and experience, ordinarily possessed by others of his profession; reasonable and ordinary care in the treatment of the case committed to him; and the exercise of his best judgment in cases of doubt. Story, in his work on Bailments, defines ordinary diligence and care to be that degree of care which men generally employ in their own concerns. All engage for the exercise of ordinary care in a profession. A physician does not engage to warrant and effect a perfect cure. The rule is, where both parties are benefited by a contract, they shall use such skill and diligence as men of common prudence employ; not such as belongs to every prudent or skilful person. Few cases of surgery are alike, and judgment is required in the treatment of them. The law does not require freedom from errors of judgment. The employer has to exercise judgment, too, in the selection of the professional man; and in cases of reasonable doubt, none are held responsible for errors in judgment, nor for mistakes committed with ordinary care and skill.

Now, diseases are rendered different by influences of char-

acter and habit, and by constitutional and natural causes. When the jury are satisfied of reasonable skill and care, that is sufficient. To show the want of skill and negligence, it is never enough to prove that the physician has not treated in that mode, nor used those measures which, in the opinion of other medical men, the case required. This alone is not evidence of want of skill and care. The plaintiff must go further, and show that defendant had not the requisite qualifications, or did not use them.

Verdict for defendant.

Baird *v.* Morford.[1]

Opinion by Beck, J. The issues presented by the pleadings appear simply and easily comprehended, and in our opinion afforded little occasion for confusion in presenting them to the jury and uncertainty in the result of the trial. The plaintiff claims for services as a surgeon and physician in reducing a fracture of defendant's arm, and other medical attention and treatment. The defendant admits the employment of the plaintiff, but avers it to have been to treat a fracture of the arm and a dislocation of the shoulder-joint and other injuries, and claims he is not entitled to recover on account of negligence in not reducing the dislocation. As a cross-demand, defendant claims damages on account of such negligence of the plaintiff. Now it is evident that, under the pleadings, the issues presented are these: *First.* The existence of the dislocation. *Second.* Plaintiff's negligence, in failing to reduce it, and negligence in reducing the fracture.

Upon the pleadings there is no issue found as to the existence of the fracture. It is averred by plaintiff and admitted by defendant; collateral issues as to the employment of plaintiff, value of his services, and damages sustained by defendant make no figure in the case and need not be noticed. Now the dispute between the parties resolves itself into these

[1] 29 Iowa, 531.

simple questions: Was defendant's shoulder-joint dislocated? Was plaintiff negligent and unskilful in treating it and in treating the fracture?

The record discloses that in order to lead the jury to the consideration of these simple and main issues in the case, about thirty instructions were given them by the court (upon the request of which party it does not appear), and they were required to return thirteen special findings in answer to eleven questions submitted to them on request of plaintiff, and two on request of defendant. Sixteen instructions asked by plaintiff the court refused to give to the jury.

It is not surprising that after all this was done, a certain degree of confusion and uncertainty is found in the record, and what was a very simple case is made to present diverse points that otherwise would not have arisen.

The omission of plaintiff to except to instructions relieves the case of many questions made upon them in the assignment of errors.

Upon the trial of the cause, defendant, against the objection of plaintiff, was permitted to introduce evidence to prove that his arm was not fractured. The admission of this evidence is the ground of the first objection of plaintiff, who insists that the evidence was inadmissible, because the fact that defendant's arm was fractured is admitted by the pleadings, and cannot be contradicted by the evidence. The view of the court seems to have been, that in the trial of the action on the cross-demand the evidence was admissible; but was not competent upon the trial of plaintiff's claim regarding the case as involving, in fact, two separate and distinct trials on different evidence. The court, in carrying out this view, instructed the jury to consider plaintiff's suit and defendant's cross-demand separately, and that in the suit upon plaintiff's claim it is admitted, and must be taken as true, that defendant's arm was fractured.

The court refused an instruction asked by plaintiff to the effect that as the fracture was admitted in the pleadings, it must be taken as true in the trial of the case, without the

limitation, in the instruction given upon this subject, to the effect that it should only extend to the trial of plaintiff's claim. The view thus taken by the court cannot be sustained. The trial upon plaintiff's claim and defendant's cross-demand was in fact but one trial.

The issues as to these separate demands of the parties were distinct and different, but they constituted the issues of one case, upon which there could be but one trial. It is impossible to concede that one party could have been held to admit a given fact, when it applied to his adversaries' claim, and yet deny it when applied to his own, and this, too, in the same trial upon the same issues. Parties in their pleadings and evidence must be held to a proper consistency, and not permitted to affirm and deny a fact in the same case. We know of no rules of law that will sanction the view and ruling of the court below. It may further be observed, in order to show the incorrectness of the ruling of the court below, that a direct issue is formed upon the cross-demand as to plaintiff's negligence, in reducing the fracture, thus involving its existence, which is not put in issue, but admitted by the defendant. He certainly cannot be permitted to contradict his admissions by evidence.

The effect of the ruling in question upon the case cannot be understood without a further statement of facts, which will exhibit a curious result. It seems plaintiff claimed, that, as a physical fact, the fracture could not have been reduced if the shoulder-joint was really dislocated. He insisted *arguendo*, that the arm was fractured, a fact admitted by the pleadings, and that the fracture was reduced, therefore there could have been no dislocation. To meet this position, defendant denied the existence of the fracture, and the court permitted him to introduce evidence to prove there was none, thus contradicting the express admissions of his pleadings. Without determining that plaintiff's argument was properly based on defendant's admission in the pleadings, it is quite clear that defendant ought not to have been permitted to answer it by denying his own admissions.

The plaintiff requested the court to instruct the jury, that to enable defendant to recover upon his cross-demand, he was required to prove that plaintiff performed the service in an unskilful and negligent manner, whereby he suffered damage, and that no negligence of his own tended to increase or consummate the injury complained of.

This instruction was refused, and an instruction given to the effect that the burden of proof rested on plaintiff to show defendant's negligence, if the same was relied upon to defeat the cross-demand. This was clearly erroneous. A party claiming to recover for the negligent or unskilful acts of another must show him to be in the wrong, and also prove, if the issue is made thereon, that no negligence of his own caused the injury. *Rusch* v. *The City of Davenport*, 6 Iowa, 443; Sedg. on Measure of Damages, 2d edit. marg. p. 468, and authorities cited.

Other objections were made to the ruling of the court below, based upon instructions given; no exceptions seemed to have been taken, and objections thereto cannot be considered. As the judgment of the court below, for the errors above pointed out, must be reversed, further objections need not be noticed though saved by proper exceptions.

Reversed.

TEFFT *v.* WILCOX.[1]

OPINION by SAFFORD, J. Upon the trial of this case in the court below, the plaintiff, now defendant, in error, having been sworn as a witness in his own behalf, was asked, among others, the following question: "What damage have you sustained in consequence of the loss of your right arm and shoulder?" The answer of the witness was in the words as follows: "My answer is, the amount claimed in my petition, fully ten thousand dollars." Both the question and the answer were objected to by the counsel for the defendant; but the objections were overruled, and the testimony

[1] 6 Kansas, 46.

was allowed to go to the jury, and exceptions to the ruling of the court were taken.

I. It is contended for the defendant in error, that, in order to make the exceptions available, the party excepting ought to have gone further than he did, and moved the court to *rule out* the objectionable testimony. We do not think so. The objections to the question propounded, and to the answer of the witness, were taken in the usual way, and upon such objections being overruled, the exceptions to such rulings were also entered according to the usual practice in such cases, and were no doubt sufficient to entitle the party in whose behalf they were so made to any right which he might have by reason of the premises. If, therefore, under the ruling of the court in allowing the question referred to to be asked and answered as stated, improper and illegal testimony was put before the jury, the course of the objecting party was such as to save the point as a basis for error to this court. Sections 300, 301, 302, Code of 1868.

II. Then, as to the question asked, it was in no view of the case a proper one. It was calculated to elicit no facts which would assist the jury in determining for themselves as to the question of damages, but left the whole matter to the mere opinion of the witness. It was a question resting upon and including a large number of facts, as is evident from the multifarious proof which was submitted, and the number of witnesses who were called and testified at the trial; and it was *such facts themselves* that the defendant was entitled to have the jury pass upon, and that, too, uninfluenced by any opinion of any witness testifying in the relation in which this witness appeared. But such right was taken away by the authority of the court in permitting the course of inquiry which was pursued in this instance, and it seems clear that such a ruling ought not to be sustained. But this matter is placed beyond a doubt when the answer of the witness comes to be considered in the light of the authorities. "Another general rule which pervades all our law is, that the witness is to testify only to facts. He is to speak as to the facts

which he has heard or seen. His opinion is not to be given, for it is the opinion of the jury on the testimony which forms the verdict and decides the case." And again: "The general rule which requires a witness to speak to facts within his knowledge is applied to the subject of compensation; the damage must be proved like any other fact in the cause, and no testimony amounting to a mere opinion is competent." Sedg. on Dam. 699, 4th edit. 700; 29 Barb. 422; 17 Wend. 137. There are exceptions to the rule as thus expressed, having reference to questions of science, trade, and to those of a similar nature. But the question and answer, and the matter to which the inquiry was directed in this instance, do not come within any of such exceptions; and hence the general rule must be held to govern. But it is claimed that the evidence complained of, even if it should be held to have been improperly admitted, could not have operated to the detriment of the plaintiff in error, for the reason that "it could not have influenced the jury, because there was no other evidence in *a lump*, and the jury found only $2,900 as the damage." We do not see how the conclusion of counsel results from or follows the premises stated. The jury must have given *some consideration* to all of the testimony which was offered, and more especially to such portions of it as had a direct bearing upon the question of damages; and it is but reasonable to believe that all of such last-mentioned evidence must have had more or less influence upon their minds in the making up of their verdict. Just how much, or how strong was such influence, as connected with or resulting from any particular portion, it is impossible to know. But is it not just as impossible for us to say, with any show of reason, that the proof of the case of the plaintiff below did not, as to the question of damages, rest, to a very great extent, upon this identical statement of the witness? The jury must not only have *considered* all of the testimony offered upon the point in question, but they were convinced by it — as witness their verdict — that the plaintiff below ought to recover; and is there any way by which we may decide as to what particular portion

of such evidence so operated upon the minds of the jury as to produce such result? If there is, we are not aware of it. Our conclusions then, as to the evidence in question, are, that it was clearly incompetent, and therefore inadmissible; that it might have influenced the jury to render a verdict for a larger amount against the defendant below than they would have rendered had legal and proper testimony only been given. Here, therefore, is good ground for error. 9 Conn. 129; 29 Barb. 422.

III. "It is not proposed to refer in detail to the further evidence on the question of damages in this record, or to the questions raised in respect thereof upon the argument, with the purpose of giving the opinion of the court as to whether they are or are not well taken. But in view of the fact that further proceedings may be had herein, it may be important to call attention to the rule as to the measure of damages which has obtained in, and has been followed by many highly respectable courts in the trials of actions of a similar nature, and hence may be considered as settled. It is to the effect, that, notwithstanding the absence of any malice or fraud on the part of an attending physician and surgeon, yet, if injury result to his patient by reason of a want of ordinary skill or ordinary care and attention in the treatment of such patient, the injured party may recover damages for the injury, and such as are compensatory in their nature. These are held to include pecuniary loss, both direct and indirect, if referable to and resulting from the course of treatment complained of. Suffering also, which is produced in consequence of the acts in question, may be a subject of compensation. So also the loss of time and actual expenses incurred in consequence of the fault, want of skill, or negligence of the physician. Regard is also to be had in such cases to the character of the resulting injury, as to whether it be temporary or permanent in its consequences.[1] So also the situation and condition of the injured party may be considerable. All of these items may be taken into the

[1] *Wenger* v. *Calder*.

account by the jury in the making up of their estimate of damages in a proper case; and as a matter of course it follows that evidence properly referable thereto, and tending to establish such damages as resulting under each particular head or description, would be competent, though such evidence must be free from objection in other respects."

This doctrine is supported upon the general principle that when an injury has been sustained, and the law gives a remedy, that remedy shall be commensurate to the injury sustained. See also as to the points named, Sedgwick on the Measure of Dam. 32; 10 Barb. 621; 1 Kernan, 416; 22 Mo. 344; 15 N. Y. 415; 1 Duer, 233.

IV. It appears from the record that during the progress of the trial several physicians and surgeons were examined on behalf of the plaintiff, who gave testimony as experts, and without knowing the particulars of the case from personal observation. Without specifying particular instances, of which there are several, the court permitted such experts to give their opinions as to matters of fact concerning, and assumed to exist in, and constituting this particular case. This is not allowable, as we understand the rule applicable to such examinations, when the facts are disputed, as was the case here. "In such a case the expert cannot give an opinion on the case under trial; but counsel must put to him an hypothetical or supposed state of facts, and ask the opinion of the witness upon these facts." Elwell on Malpractice, 277, and the cases there cited. This rule ought to have been followed in this case; and the court failing to enforce it, and the defendant having properly saved his objections in respect thereof, he is in a condition to take advantage of the error whenever it occurred. And that such error is substantial, and calculated to prejudice the rights of the party to be affected thereby, is not doubted; it cannot therefore be disregarded.

V. It is claimed that in the examination of witnesses in this case, questions were propounded which were of and concerning matters involving points of law only. It hardly need

be said that this course of inquiry was improper, if it occurred as stated. This does not, however, appear to be the case in regard to the portions of the testimony to which our attention is directed under this point, and which had reference to what would be the duty of an attending physician and surgeon under like circumstances as were supposed to exist in this case.

VI. As to what constitutes ordinary skill, and ordinary care and diligence on the part of a physician and surgeon — it is a question of law, in this view at least, that it is to be stated by the court as defined by the books. It will be seen, however, at a glance, that in order to enable a jury to apply the rule so stated to particular circumstances, something further is necessary to be done. Such jury must be informed as to the facts or criterion upon and by which the standard of ordinary skill and ordinary care and diligence rests and is regulated in these professions. And to supply such need, evidence may properly be introduced as showing such facts. This evidence must, from the very nature of the case, come from experts, as other witnesses are not competent to give it; nor are juries supposed to be conversant with what is peculiar to the science and practice of the professions of medicine and surgery, to that degree which will enable them to dispense with all explanations. Such explanations, therefore, become necessary. In this view, the whole question under consideration seems to be one of mixed law and fact, and is so to be regarded. The questions to which reference is made, so far as they are directed to the end suggested, were proper.

VII. The testimony in this case was very voluminous, and numerous objections were interposed to the introduction of specified portions of it (other than those to which we called attention), on the ground of incompetency, irrelevancy, and immateriality. We have very carefully considered each of the points made, and have reached the conclusion that some of them are well taken, and should be sustained. It does not seem essential, however, to take up and examine and pass the questions thereby presented, and for several reasons:

1st. In view of the conclusion reached, in regard to the point already considered in this opinion, the case must go back for a new trial. 2d. Upon such trial we cannot believe that those errors which we think were committed on the former trial, and to which reference is not made, will be at all likely again to occur; and, 3d. In such last view of the matter no practical good would result from our investigation, which would be commensurate with the task of going over the entire ground suggested upon the face of the record. And besides this, such investigation would, for the most part, be an examination into, and an assertion of well-established and declared principles of law, respecting the examination of witnesses and the introduction of testimony. It is also to be remarked in this connection, that while some of the questions which were objected to by counsel were no doubt improper, they were of such a character as to result in no particular injury to any one, and the mere fact of their being allowed would not therefore be a sufficient ground for a reversal.

VIII. But objections are also urged to the instructions which were given to the jury. We do not propose to discuss these instructions at length, or even notice all of them; but shall content ourselves with calling attention to some which are especially objected to, and as to these, with a single exception, more by way of general remark than by direct or particular examination. It is claimed that the fifth instruction which was asked and given in behalf of the plaintiff below does not give the correct rule by which to determine the responsibility of the defendant in this case; and for the reason, that the standard of legal obligation imposed thereby would require of him extraordinary care and skill, an extraordinary amount of learning in his profession, and an extraordinary judgment. The objection is to a certain extent sustainable. The instruction was liable to be made the means of conveying to the minds of the jury an idea of the undertaking on the part of the surgeon, when he assumes the charge of a case, which the law does not justify. It was therefore calculated to injure the defendant, as requiring too

much at his hands. As we understand the current of the decisions as to the undertaking and responsibility of a practising physician and surgeon, it is to the effect, substantially, and may be stated as follows: He is never considered as warranting a cure, unless under a special contract for that purpose; but his contract, as implied in law, is, that he possesses that reasonable degree of learning, skill, and experience which is ordinarily possessed by others of his profession; that he will use reasonable and ordinary care and diligence in the treatment of the case which he undertakes; and that he will use his best judgment in all cases of doubt as to the proper course of treatment. He is not responsible in damages for want of success, unless it is shown to result from a want of ordinary skill and learning, and such as is ordinarily possessed by others of his profession, or from want of ordinary care and attention. He is not presumed to engage for extraordinary skill, or for extraordinary diligence and care; nor can he be made responsible in damages for errors in judgment, or mere mistakes in matters of doubt or uncertainty. See 7 Foster, 460; 28 Maine, 97; 39 Maine, 155.

A careful consideration of the foregoing observations will show that the degree of learning and skill which the physician and surgeon holds himself out to possess is that degree which is ordinarily possessed by the profession, as it exists at the time, or contemporaneous with himself, and not as it may have existed at some time in the past. It follows, then, that the standard of such ordinary skill may now be in the advance of what it has been in the past, and according to the general and material progress made in the sciences of medicine and surgery, "the standard of ordinary skill which is required of any physician and surgeon, it will be borne in mind, is that degree and amount of knowledge and science which the leading authorities have pronounced as the result of their researches and experience up to the time, or within a reasonable time before the issue or question to be determined is made." Elwell on Malpractice, 53. And such phy-

sician and surgeon must in general be held to apply in his practice what is thus settled in his profession. Ib. 31. There is nothing unreasonable in such requirement, and it is no more than that which is expected of the other professions. That which is pronounced as settled in any profession by the leading and standard authorities therein is within the reach of any practitioner; and his being such practitioner, in general, presupposes the fact, and is guaranty on his part that he is in possession of a knowledge of it as so settled. The ideas here advanced are not to be extended so as to embrace what may be known only to, and practised by, the highest talent; but should be confined to that which is within the reach of, and may and should be attained by, the more common and ordinary class of practitioners.

Regard also is to be had to the circumstances by which the different portions of any one profession may be surrounded, as affecting the question of their proficiency in, and knowledge of, advances which may be made in their particular line, and the obligation to be up to such advance. The opportunities by reason of locality, or other circumstance, of one portion, may be many times more favorable than those of another; and the responsibilities resting upon them would be correspondingly greater. This idea is illustrated by Elwell in his work on Malpractice, pp. 22, 23, where he makes the following observation: "There are many neighborhoods, in the West especially, where medical aid is of difficult attainment. Yet cases of disease and surgery are constantly occurring, and they must of necessity fall into the hands of those who have given to the subject but little if any thought. Thus, the inexperienced and the unlearned attend to the surgery in their way, or it is not attended to at all. . . . . In such cases no more can be expected of the operator than the exercise of his best skill and judgment. In large towns and cities are always found surgeons and physicians of the greatest degree of skill and knowledge. They are to be held to a corresponding high degree of responsibility. . . . . In the smaller towns and country, those who practise medicine

and surgery, though often possessing a thorough theoretical knowledge of the highest elements of the profession, do not enjoy so great opportunities of daily observation and practical operations, where the elementary studies are brought into every-day use, as those have who reside in the metropolitan towns; and though just as well informed in the elements and literature of their profession, they should not be expected to exercise that high degree of skill and practical knowledge possessed by those having greater facilities for performing and witnessing operations, and who are, or may be, constantly observing the various accidents and forms of disease. It will not, therefore, as a general thing, require so high a degree of knowledge to bring this class of physicians up to the rule of ordinary knowledge and skill, as in places where greater facilities are afforded by which higher professional knowledge is attainable." We have remarked above as to the obligation of the physician and surgeon to apply correctly in his practice what is settled in his profession. But it is to be remembered that such application is not alone adequate to the management of the different cases, and the phases thereof, which the practitioner may be called upon to meet. His best judgment is constantly appealed to, and upon such judgment he must rely. It is plain to the most casual observer that there is great room for difference of opinion in the exercise of the arts of medicine and surgery; and as a result, there are usually more ways than one of accomplishing the same thing, and each having its advocates as being equally efficient, or even better than any other. "Good judgments may differ;" and such being the case, as just remarked, the practitioner must use his judgment, and follow its dictates in all cases of doubt, or where there may be a foundation for such differences of opinion; and if he thus exercises such judgment in an enlightened and reasonable manner, he will not be responsible for errors. Elwell on Malpractice, 29. But it is unnecessary to prolong this opinion by further discussion of the points suggested by the record, or by the argument of counsel. The case must be

remanded for a new trial upon the grounds first adverted to herein; and enough has been said as to the law governing cases of this sort to indicate the opinion of this court upon the more important questions which are raised upon the instructions, and which may be presented on a reëxamination of the case. *The judgment is reversed.*

All the justices concurring.

CHAPTER III.

FRACTURES NEAR THE ELBOW-JOINT.

STEELE *v.* NEWTON.

(Superior Court, Cincinnati, Nov. Term, 1856.)

THIS was an action to recover damages for alleged improper treatment of a fracture of the lower end of the humerus. Damages laid at $3,000. The defendant was an "Eclectic" practitioner of Cincinnati, and the editor of a work entitled "Symes' Principles and Practice of Surgery," from which this case is quoted.

"When stripped for examination (about the time of the trial), it was found that motion of the elbow-joint was perfect. There was a visible decrease in the muscles of the fore-arm and partial contraction of the fingers. He stated that he sometimes scratched his hand so as to make it bleed without being aware of the injury. The contraction of the fingers was not more than is customary with those who walk with their hands swinging by the side."

ABSTRACT OF EVIDENCE.

Prof. R. D. Mussey testified, "that he found the arm withered, and the general sensibility much impaired — results arising from diminished innervation. He inferred that the blood-vessels had been too much constricted by the bandages, thus obstructing the proper circulation of the blood in the limb. These results might have been induced by injury to the median nerve, but thinks the circulation was obstructed, and in consequence the blisters appeared. Fractures in the lower end of the humerus are very difficult to

treat, and for which there is a variety of plans. He should have kept the fore-arm flexed on the upper-arm, at a right angle, and have been careful not to dress it too tightly. He should use some sort of a splint, though he could not at present specify the exact kind. He was of opinion that, if a fracture had existed in the case, it was probably an oblique fracture including the internal condyle. The elbow-joint is now in good condition, having its natural motion in all directions. He has not, however, seen similar results from such a fracture. The ulnar nerve, as well as the median, may have been injured."

Cross-examined. "He was not positive as to the direction of the fracture, nor was it always easy to judge so far as to form a positive opinion. All fractures of the os humeri, running into the elbow-joint, are difficult of cure. He was of opinion that a permanent injury, or a degree of deformity, is sustained in a majority of cases. The vesications in this case may be accounted for by the injury done to the nerves, but thinks that tight bandages are oftener the cause of such results. He has seen cases similar to this, — has seen a case, some years ago, where the fore-arm mortified in consequence of having been too tightly bandaged. Thinks that in this case the dressing may have been too tight. He was of the opinion that partial paralysis might be induced by too tight dressing, without gangrene necessarily ensuing. Erysipelas may follow such injuries, exhibiting itself in from twenty-four to seventy-two hours."

Prof. Jesse Judkins testified, that "wasting or withering may be a result of muscular changes or of nervous sympathy. If there had been a fracture of the arm, the reparation had been most complete. Was of the opinion that the inflammation had been very intense. The capillary circulation may have been arrested by too tight bandages, the result of which would have been inflammation, erysipelas, and gangrene. Injuries of the elbow-joint are always attended with complications, the nature of which *cannot* be always easily determined. The erysipelas complained of was, in all proba-

bility, induced by too tight bandages. The surgeon should see such a patient at intervals ranging from two days to one week."

Cross-examined. "Does not think that the injury of the median nerve alone caused the difficulty here presented. Thinks the bandages might have caused the erysipelas. Bandages cannot be put on tight enough to paralyze, without producing gangrene. He thought that a majority of fractures of the elbow-joint were completely cured. When elbow-joint fractures are complicated, the majority were not cured completely."

Prof. T. Wood testified, that "he thinks present condition of the arm is the result of bandages too tightly applied. Could not discover evidence of there ever having been a fracture. Never met with such a result as this, except it had arisen from bandages too tightly applied. The median nerve did not supply all the fingers. He thought that the purple color of the hand, as testified to by plaintiff, arose from compression, — the blistering being one of the first results of such compression. Paralysis may be induced without gangrene. No injuries of the elbow-joint are so completely cured as to leave no trace of them. Had known wasting of the arm to occur where the bone had sustained no injury."

Prof. G. C. Blackman testified, that "he had examined the boy's arm and had heard his statement, but from those sources had formed no positive opinion. The paralysis may be the result of the shock sustained at the time of the accident, or it may be the result of too tight bandaging, or from having retained the arm too long in one position. The blisters common to such fractures may follow in less than twenty-four hours where there is no dressing, and may be the result of the violence done to the soft parts at the time of injury. If erysipelas was, at the time, epidemic, it would almost certainly follow as one of the phases of such a case as the one under consideration, or even a less injury. He had no positive proof that the arm had been fractured, but he

thought there had been a fracture of the humerus, involving the inner condyle and injuring the ulnar nerve. These are bad fractures, and their true nature is difficult to detect. He thought that the ends of the bones should have been put together immediately, inflammation or not. The bandages in such oblique fractures must be tied rather tightly, and the surgeon may use either the wooden or pasteboard splints. Had known mortification occur in twenty-four hours from tight bandages."

Cross-examined. "Could not say that the bandages in this boy's case had been too tight. In such fractures it is very common to have impaired motion. The experience of the oldest and ablest surgeons in both Europe and America show this to be the case. Prof. Hamilton shows that a majority of such cases are attended with permanent injury of some sort, and all authors on the subject testify that an impaired condition results in a large majority if not in all cases. Conditions might arise which would cause him to remove the bandages entirely, as severe pain, inflammation, &c. He considered the repair in this case very perfect, and he had seen greater paralysis arise from less injuries."

Prof. R. S. Newton, the defendant in the case, testified, that "he was a professor in the Eclectic Medical Institute, and Surgeon to Newton's Clinic Institute. On the day set forth in the declaration saw the boy, Steele, with his arm broken. Humerus broken off obliquely, the end of the bone driven down into the hollow of the arm. Boy suffering very much. Could distinctly feel the end of the bone. Had experienced but little difficulty in setting it, but it was not so easy to keep it in proper position, there being a constant tendency to slip down; hence, to prevent this, the bandage had to be applied firmly. The arm was much swollen at the joint, and all the blood-vessels of the arm seemed to be engorged, though not more than an hour had elapsed since the accident. He first drew the points of the bones together, and then bandaged the arm from the hand up, afterward applying the splints, leaving the arm flexed at right angles. In

this case more pressure was needed than in simple transverse fracture, on account of its obliquity. Visited boy next morning with Dr. Freeman. Boy complained of arm hurting him; on removal of dressing found arm blistered, part of the arm and hand was of a darkish red, but there were no indications of gangrene. He said to Mrs. Steele that it was a bad fracture, and that he would hold the arm till she could get her family physician or another surgeon, unless she would assume the responsibility of the case. She told him to go on and do the best he could. He had explained to her the dangers of such a fracture. After puncturing several of the blisters, he reapplied the bandages and then put on two splints, — one on the inside and one on the outside of the arm. The bandage extended from the ends of the fingers above the fracture, the hand being bandaged straight. One of the splints was removed in a few days. When the long wooden joint splint was off the inside, he had an elastic splint on in its place, and a long wooden one on the outside. He treated the blisters with water dressings, and continued the splints four weeks or longer. The arm became offensive about one week after the accident. Had the boy under his care about seven months. Had treated the case as a charity patient, never having made a charge against Mrs. Steele on his books."

Prof. A. H. Baker testified, that "the erysipelas spoken of was a result of inflammation, and this had been induced by the injury done to the soft tissues. The indications of a fracture in such a young patient may be so completely removed in eighteen months or two years that no mortal man can detect it. The first bandage he considered most important. The practice of Dr. Newton in this case was proper, and such as would have been followed by any judicious surgeon."

Prof. Z. Freeman testified, that "he saw patient next morning after the accident. The hand and arm were purple. There were blisters on the hand and arm. The bandage was not too tight. It was an oblique fracture above

condyles. The boy's mother declined calling in any other physician, and both she and the boy requested Dr. Newton to go on and treat the case. The blisters in this case were, in his opinion, the result of the attending erysipelas."

The Hon. O. M. SPENCER, in his charge to the jury, said: "It is due to the professional man, who has treated a case in other respects fairly and attentively, that a candid and favorable consideration should be given to the judgment which he may form of his duty during the progress of that case; otherwise no physician or surgeon would dare to undertake, or be safe in the performance of his undertaking. In a case otherwise doubtful, this consideration alone should preponderate in his favor.

"Upon the whole, gentlemen, we declare that to entitle the plaintiff to a verdict, you must be satisfied from this evidence that the injury of which he complains was not the natural result of the original accident, but was distinctly traceable to the mode of treatment pursued by the defendant; in the adoption and continuance of which he did not apply that skill and care which men of ordinary intelligence and prudence, as physicians and surgeons, would have applied. Should this be your conviction, the plaintiff must recover such damages as will compensate him for the injury sustained, not exceeding the amount claimed. Should it be otherwise, or should you not be able to trace the cause of this injury, or your minds be unable to decide from the evidence whether the defendant has been in fault, according to the rule stated, your verdict should be for the defendant."

Verdict for defendant.

RUSSELL *v.* WARDNER.

(Alexander County (Ill.), C. C. April Term, 1871.)

DECLARATION. Plea of trespass on the case. Defendant was employed as surgeon, &c., to treat certain hurts of plaintiff's arm. The defendant entered upon the treatment,

and afterward so carelessly, negligently, improperly, and unskilfully conducted himself, that the arm of plaintiff was rendered crooked, and so out of shape, and still remains so; that the same is weak and wholly useless, whereby he has lost and been deprived of great gains, wherefore he brings suit.

In the second count the plaintiff avers, in addition, that the arm was rendered painful, deformed, and of little use, to the damage of the plaintiff $10,000.

Trial before a jury. BAKER, J.

ABSTRACT OF EVIDENCE. — FOR PLAINTIFF.

Plaintiff testified, that "he broke his arm. Defendant came in fifteen or twenty minutes, and said it was broke and dislocated too. Dressed arm on two splints, pretty tight, brought arm around so that hand came against stomach. Told him it did not look straight. He said it would come all right. Then placed it in a sling. Next morning I went to his office. He took off first splints and put on a pistol splint. In eighteen days he took off bandage and said it was knit. It then appeared to me as crooked as it is now. The arm is not strong. Light work will so tire it as to pain me at night, and keep me awake."

Cross-examined. "The doctor picked up my arm, said it was broke near the wrist; said he did not know but the end of humerus was broken off; he was afraid it was; said head of radius was dislocated; said there was a fracture of radius; was a bad fracture, thought it would come all right; did not say anything about its being stiff. Did not say anything about dislocation of the ulna. It stood out as it does now. After it was dressed and the bones adjusted it felt more comfortable than before. Splints projected over the arm perhaps one fourth of an inch on each side. The inside splint extended to elbow; the outside one a little above elbow and on the hand to near end of fingers. Another bandage was put on outside of splints. Next morning put on pistol splint. Told me to keep thumb upward, arm level

from hand to elbow. After several days there were little blisters below the elbow; nothing of the kind next morning. I do not remember going to his office eight or nine days after accident with splints in my hand. I did not take them off till they were finally taken off by him. I did not take off splints at night."

Dr. James Roberts testified, that "there was a deformity of radius, shortening half an inch, obtuse angle resting very near the ulna; deformity of external condyle; inability to straighten fore-arm; cavity at the head of ulna in olecranon fossa; slight dislocation of head of radius; elongation of ligaments that fasten lower end of ulna to wrist and radius; fracture oblique; falling down of parts on the ulna gives the arm a crooked appearance. Dislocated head of radius could have been reduced. Good surgery would have required the reduction and fractured parts to have been put in exact apposition. Nothing less would have been good surgery. They are now partly together, not as they should be. Dislocation of head of radius would have been discovered easily if no swelling. Have known it to swell in half an hour, half the size of the limb. If there was dislocation of head of radius, I would discover it without much looking; cannot tell whether there was a reduction of the dislocation; it is a very difficult bone to keep in position after it is reduced."

Cross-examined. "In complete dislocation the ligaments which connect the two bones would have been severed; this being so, it would be difficult to keep the bone in place; a partial dislocation now is no evidence that it was not properly adjusted at first. There are many cases of swelling where the bones could not be replaced, except at risk to patient's life. No fractures so liable to deformity as those of fore-arm; occur when patient has had the best of treatment. In this case no evidence of malpractice. Would not be surprising if patient had died of erysipelas. The roller (initial) bandage was necessary, the injury required it; would have been bad surgery not to have used it. Not bad surgery in any case to use straight splints. Carrying hand only

in sling would have had the effect I now see in plaintiff's arm."

Dr. Wood, graduate of Castleton Medical College, testified, that "there appears to have been fracture of radius, and there is want of motion in the hand; arm crooked, fracture partly in apposition, bones partially override and drop down in interosseous space. Duty of surgeon to ascertain nature of injury, put ends of bones in natural position, and apply proper dressing to keep them in position; if no swelling, not difficult to ascertain when in natural position. No other treatment would be good surgery. No tendency in bones to adjust themselves. In simple fracture without complication, would not use *primary* bandage. Surgeon often makes a temporary dressing at first, until he can better it, and after, if found doing well, lets it remain. Surgeon's duty to readjust fracture, in case of displacement, if he can. Head of radius is slightly out of place; deformity about wrist necessarily follows. Cannot say whether dislocation is from original injury or from the fractured bone falling into interosseous space. Think better job ought to have been done. Attending surgeon is a better judge. Might have been worse, if no attempt to set them."

Cross-examined. "Original injuries, fracture of radius a little below middle; partial or entire dislocation of head of radius, and consequent rupture of ligaments. Cannot say external condyle was fractured. Cannot say what has caused impairment of flexion and extension. I attribute it to bony matter. It is a reasonable hypothesis to attribute this bony matter to fracture in this locality. With all these complications would hope for a better result; I doubt whether I should expect it. I should expect a better, but nothing like a perfect arm. I might be disappointed. I know Professor Gross. Am not familiar with Hamilton's work on Fractures. Think it is standard authority. Never treated a case like this with all its complications. In simple fracture, to find bones fall into interosseous space would be no evidence of lack of skill or attention. They will fall into that space in spite of best

attention. There is always some deformity. Tendency of fragments into interosseous space, and arm crooked, duty of surgeon to straighten it. Can only be done when circumstances permit. Great prostration, inclination to lock-jaw, or inflammation, would forbid any interference. Arm doing well to fourteenth day, then swelling, discoloration and depression ; tendency for bones to fall into interosseous space ; good surgery would not disturb it."

Dr. Gordon testified " to fracture and depression of radius. Thinks condyle of humerus is broken. Swelling in cases like this would differ in different people. Should have hoped for a better result. Would have tried to counteract tendency of bones to fall into interosseous space. Arm considerably impaired in its use. There is partial dislocation of head of radius, due to fracture of external condyle, or depression at centre of radius. If there had been a dislocation of radius at time of fall, an examination would easily have discovered it. No complication of the case would relieve surgeon from putting bones in natural apposition."

Cross-examined. " If bones were put and kept in apposition, the arm would be straight. Surgeon's duty to keep them so, if he can. I would not say he could do so in all cases. I would have hoped and expected a better result. The result obtained is no evidence of improper treatment. When I say I hoped better result in this case, I doubt the character of original injuries. With all the complications named, the man has a pretty good arm. The surgeon in charge is the best judge of what should be done in such a case. There are cases in which the readjustment would not dare be attempted, particularly if inflammation was going on at the time."

C. H. Evans, graduate of Jefferson School, Philadelphia, testified : " There is fracture of radius, middle third ; dislocation of radius at elbow ; dislocation of lower end of ulna ; some injury to elbow-joint, think some fracture there. Some bony substance there only would prevent extension. One end of broken radius in contact with ulna. Might have been

thrown out of apposition after proper adjustment. Cannot tell whether better job should be expected. No complications, in simple fracture, would in a majority of cases get good jobs. In this case, cannot say whether better result ought to be required. I do not know that it could have been any better."

Cross-examined. "There are some cases where it would be bad surgery to attempt to readjust; surgeon in charge is best judge. Taking all the circumstance in this case, the result is as good as could be reasonably expected."

FOR DEFENDANT.

Dr. H. Wardner, graduate of Rush Medical College, 1856, testified: "Am defendant. Found plaintiff very pale, pulse weak, and, as he said, faint; in short, he had all appearance of severe shock. Made a careful examination of his injuries. Remarked to him, they were bad. Asked him if he would like to have another physician called in; he replied no. Found fracture of radius, lower part of middle third; upper end of lower fragment was drawn inward toward ulna by action of the quadratus; the lower end of upper fragment was pulled outward and backward, so I could distinctly feel the sharp end of an oblique fracture under the skin; head of radius dislocated forward on humerus, the head resting in bend of elbow, near coronoid depression. I discovered fracture of external condyle; it was so loose that on touching it motion and crepitation was very distinct; there was a good deal of effusion of blood in the neighborhood of the injury; considerable swelling from that effusion; not much swelling at seat of fracture of radius; found, also, partial displacement of lower end of ulna; these displacements were necessarily accompanied by rupture of the orbicular, the anterior and external lateral ligaments at the elbow, also a stretching or rupture of ligaments attaching lower end of ulna to radius; stretching of sacciform membrane; end of ulna crowded downward a little, not a marked dislocation; hand pronated, sharp ends of oblique fracture wounding

muscles and tissues. Prepared two splints from shingles, a little wider than arm, reaching from elbow to near ends of fingers; fracture and dislocations reduced by extension and manipulation; applied bandage from fingers to elbow, carefully, smoothly, and moderately tight; took especial care it should not be too tight; he said 'it was not too tight, it felt better.' Cotton batting compresses and splints were applied, the arm in extended position and perfectly straight. Splints on, in, and outside of arm. The arm, with my hand supporting elbow, was carefully flexed to a right angle, across front of body. Thumb upward. Applied figure of 8 bandage to elbow; hand was placed in a double sling, one under elbow. Elbow to be wet with cold decoction of arnica flowers. Advised him to keep still. Would see him in the morning. He asked if it would be proper for him to walk about. Told him it would, that patients with injury to upper extremity were always allowed to walk; he then said, 'You need not call again unless I send for you; I will call at your office.' For next six days dressed arm repeatedly. On the sixth day a pistol-handled and pasteboard splint was laid along arm, bandages replaced, arm flexed, thumb pointing upward. This dressing was not removed until fourteenth day, plaintiff, in mean time, stating his arm was feeling comfortable and doing well. From ninth to twelfth day did not see him. When next seen, said arm was feeling very well, but the crooked splint had hurt him the night before, and he had taken it off, and had reapplied it himself. (This was 6 P. M., and arm appeared in good position.) Told him he must come to my office the first thing next morning. Came next day, hand in sling of his own, and crooked splint in his hand. Undressing arm found for first time a slight depression of ends of bones. Arm dressed in plaster of Paris. Twenty-first day after injury swelling had subsided considerably, plaster bandage somewhat loosened. Cut a strip out of it and rebandaged it, arm supported as before; told him to work fingers to prevent adhesions in muscles of fore-arm. Dressed arm on 28th day. During fifth week he was instructed to

remove dressing himself, and rub arm with stimulating embrocations, also exercise his arm, work his elbow and hand every day. From eighth to tenth day of treatment I made motion to prevent anchylosis, or stiffening of joints. Mr. R. returned splints during sixth week, from which time considered him dismissed. Told him to exercise arm gently, and that he would not be able to work for several months. Shortly after this he came to my office and said he had been at work at the bench shoving a jack-plane, and said his arm began to pain him. He showed me how he used his hands, — left hand on plane and the other shoving it. I told him he had gone to work too soon at severe work; he must work it gently. I do not think I neglected anything. I believe the treatment was correct, and the result better than I promised him it would be."

Cross-examined. "When called, went immediately. Kept some notes of case as it progressed. On the 14th day thought it improper to interfere with the arm. On 21st day, inflammation, heat of weather, and such slight increase of depression, did not feel warranted in making a refracture. Think he would have lost arm, may be his life. Would not expect such a depression in simple fracture."

Dr. Dunning testified: "Am a graduate; practised twenty years. Judging from present condition there is fracture of radius, lower third, very slight depression; dislocation of head of radius, and fracture of external condyle of humerus, and partial displacement of ulna. There are cases of simple fracture where bones fall into interosseous space, and where it cannot be prevented. In many cases it is most difficult to hold radius in proper position. Its being out of place is no evidence that it was not first properly set. Heard Dr. Wardner's testimony. His treatment was in accordance with approved surgery. Proper to place arm so as to bring fracture in as near apposition as possible. Pistol splint ought to be used. No better means to use."

Cross-examined. "Heard plaintiff's testimony, as to dressing. It was proper. I do not make promises in fract-

ure cases. Surgery is not an experiment. Depression should have been arrested on 14th day, by the means used, if directions had been obeyed. I account for present condition only on the ground that the appliances were not kept on, or directions not followed out. I cannot tell original position of fragments. I tried to discover but cannot say."

Dr. Tabor testified: "Have practised over thirty years. There has been fracture of radius and of external condyle. Dislocation of head of radius would make it more difficult to obtain a good result. Fractured condyles are considered very dangerous, as inflammation is very apt to set in. The stop in the flexion of the arm is caused by a bony deposit. This may take place in spite of everything."

Cross-examined. "If the fracture had these complications, he should not work for three to six months. There is not a very considerable depression in this case or he could not have so much rotary motion. He has two thirds of the natural rotary motion."

Dr. F. R. Waggoner testified to fractures and dislocations. "Flexion and extension nearly half destroyed. Pronation and supination nearly perfect. Dr. W.'s treatment was an improvement on that of many surgeons."

Dr. Brigham testified: "Find evidence of fracture of radius, &c. The evidence of fracture of condyle is the fact of partial anchylosis at elbow-joint, caused by bony deposit. If radius and ulna touched there would be no rotary motion at the wrist. The result is better than could ordinarily be expected."

Dr. Wagmeyer testified: "Was educated as a military surgeon in Military Academy at Vienna. I was seven years at study. I graduated at Military School. I have practised medicine. I was Professor of Medicine in Humboldt College. Professor of Natural Sciences, College of Christian Brothers. Was in Austrian service; then took service in Hungary, in 1848–9. Am a Hungarian. In 1850–1–2, I was surgeon in Spanish navy. In 1854–5–6, was surgeon in Crimean War. Have examined plaintiff's arm. Find fract-

ures, dislocations, &c. In view of the nature, &c., &c., I think in such a case as this I should have preferred amputation."

Cross-examined. "There is a fracture of condyle. I can feel it very plain."

The evidence being all in the plaintiff took a nonsuit.

The testimony in the foregoing case has been very greatly abridged. It is, however, very generally given in the words of the record. The case is one in which the "primary" or "initial" bandage was used, and from it no harm resulted, owing to its *judicious* application, "especial care being taken not to apply it too tightly."

Dr. Dunning gave the true theory of "setting" a fracture, "so placing the limb as to bring fracture in as *near* apposition as possible."

LOWE *v.* MCNEVINS.[1]

THE evidence in the court below, before the jury, was that the plaintiff's (McNevins') arm was broken in the elbow-joint. The defendant (Lowe) bound up the arm with a bandage, and said it was all right; told Mr. and Mrs. McNevins to wet it frequently with vinegar and wormwood. He then left, and did not return to see his patient for several days. When he called again, he examined the arm, and said it was doing well. Mrs. McNevins discovered that the bones were sticking up, and sent for the defendant. He came and examined the arm again, and still claimed it was all right; that the bone which stuck up was attached to the skin and would come all right; and that they must rub it with oil. He said, also, that the patient would outgrow the deformity in five or six days. Said he had cured a broken leg in New Boston that Drs. Willits and Harrell could not cure; also told of the great cures he had performed in Wisconsin, where he had a large practice. The jury found for the plaintiff; damages, $700. *Appealed.*

Mr. Justice LAWRENCE delivered the opinion of the court.

[1] 40 Ill. 209.

"This was an action brought against the appellant for malpractice as a surgeon and physician. In the third and fourth instructions for the plaintiff, the court told the jury that the defendant, if he held himself out as a physician, was liable for whatever damage may have accrued to the plaintiff by reason of *any* want of care or skill on his part, whether he charged fees or not. This states the responsibility of the physician too strongly, as it requires the highest degree of care and skill, whereas only reasonable care and skill are necessary.

As to the payment of fees, the instruction is unobjectionable. If a person holds himself out to the public as a physician, he must be held to ordinary care and skill in every case of which he assumes the charge, whether in the particular case he has received fees or not. But if he does not profess to be a physician, nor to practise as such, and is merely asked his advice as a friend or neighbor, he does not incur any professional responsibility. The case of *Ritchey* v. *West*, 23 Ill. 385, is to be understood in this sense. The judgment must be reversed because the instructions required the highest degree of care and skill. *Judgment reversed.*"

This case was finally settled for $200, pending a new trial.

Wilmot *v.* Howard.[1]

"This was an action on the case against the defendant for damages occasioned to the plaintiff by want of skill of the defendant as a surgeon, in setting the plaintiff's arm, and for negligence and inattention to the same after it was set.

Plea, the general issue, and trial by jury, June term, 1866.

The plaintiff is the minor son of the next friend, Daniel C. Wilmot, and was, at the time of the injury complained of, seven years of age, and resided with his father.

The counsel for the plaintiff introduced evidence tending to show, that about the 9th of June, 1863, the plaintiff fell

[1] 39 Vermont, 447.

and broke one of the bones of the fore-arm, and that the father of the boy took him to the defendant's to have his arm set, and otherwise dressed and attended to; that the defendant, who professed to be a surgeon, undertook to set and take charge of the fractured arm; that he did set it, but in doing so, and in dressing the arm, he did not use ordinary skill, and that by reason of an improper bandage, and putting on the bandage too tight, it caused pain and suffering to the plaintiff, and mortification, decay, and the entire loss of the use of the arm. There was evidence tending to show, that when the defendant set the arm he dressed it by first winding a bandage around the arm very tight, from near the hand to very near or quite to the elbow, then put on the splints outside of this, then another bandage wound around the arm tight from near the hand to the elbow, over the splints; and the testimony of several practising surgeons was given, which tended to show that an inner bandage was improper, unnecessary, and detrimental, and that the tight manner in which this was put and kept on, in their opinion, caused the arm to perish and mortify. The plaintiff's counsel further gave evidence tending to prove, that as the father was about to leave the office of defendant, it was the defendant's suggestion, agreed and arranged by them — this being Wednesday — that on the succeeding Sunday the father of the boy should take him to the office of the defendant to have the arm dressed, or whatever else its condition should require; that immediately after the arm was set, it became and continued very painful, on account of the improper and unskilful bandage and dressing; that on Friday following, the defendant was passing by the house of the father of the boy, when the father called the defendant in to see the arm; and that he then informed him that the bandage was too tight, and that it caused great pain to the arm, and that it had done so ever since he set it; that the boy had been in great distress and complained of the bandage being too tight, and of great pain in his arm, and called the defendant's attention to the fact that the hand of the broken arm was swollen and blistered

on the fingers. The evidence tended to show that the hand had become purple, and that the defendant said he would not undo the arm; that then he called his attention to one of the splints being up so high as to interfere with the arm at the elbow, and that the defendant thereupon unbound the outer bandage far enough to slip down the inner splint so that it would not prevent bending the elbow, and put on the bandage again as it was before, after thus adjusting the splint on the inside of the arm.

The plaintiff further gave testimony tending to prove that the defendant then told the plaintiff he need not fetch the boy to his office at all, and agreed to call and see the arm the next Monday or Tuesday, at said Wilmot's; that on the following Tuesday the defendant passed by the house of the plaintiff and did not call, and never after that called upon or saw the arm.

The defendant gave testimony tending to prove that on Friday, when the father of the plaintiff called defendant in to see the arm, it was agreed that the father of the plaintiff, on the succeeding Sunday, should take the plaintiff to the defendant's office to have his arm dressed if it needed dressing, and that the defendant did not agree to call at the house of the father of the plaintiff.

And the defendant further introduced testimony tending to prove that on several occasions, one of which was on the next Sunday succeeding said Friday, the father of the plaintiff, not in the presence of the defendant, told individuals that he had agreed to take the plaintiff to the defendant's office on the next Sunday after said Friday, to have the arm examined and dressed, if it needed dressing.

Wilmot testified that he never made any such statement, but admitted that he had stated, on one or two occasions, that at the time the defendant first set the arm, it was understood he was to take the boy to the defendant's office the next Saturday or Sunday after it was first set by the defendant. It was admitted on the part of the plaintiff, that the plaintiff was not taken to the defendant's office, as the de-

fendant claimed the agreement was, and that the defendant was not called upon or requested after said Friday to attend upon the plaintiff, and that the defendant never did see or attend upon the arm after that time.

The testimony on the part of the plaintiff tended to prove, that the arm was not well and properly dressed, and that the plaintiff has lost the use of his arm by reason of the want of proper skill in setting the same, on the part of the defendant, and by reason of negligence and inattention to the same, on the defendant's part after it was set.

The defendant's testimony tended to prove that the plaintiff's arm was well and skilfully dressed and set, and that the loss of the use of the arm resulted from the peculiar injury of the same at the time it was broken, and from the fault and negligence of the father of the plaintiff in not bringing the plaintiff to the office to be dressed and attended to as he had agreed to do, and from other want of proper care and attention.

There was other evidence as to what was said and done and agreed upon when the defendant came into the father's house on Friday to see the arm, upon the part of both parties; also as to the effect of the defendant's treatment, the injury to the arm on account of the manner of dressing, negligence, &c., of the defendant, and the treatment by other surgeons.

The counsel for the defendant claimed to the jury in argument that if the damage to the arm resulted in whole or in part from the mismanagement and negligence of those having the care and management of the plaintiff, that the plaintiff is not entitled to recover; and stated to the jury that he presumed the court would so charge. The court treated this as properly raising and presenting the question. The court did not so charge.

No other requests were made by the defendant's counsel.

The court charged the jury fully upon all points presented by the evidence, and no exceptions were taken to any neglect or omission to charge, or to the charges as given, except as

heretofore stated. In the course of the charge the court told the jury that there was an implied obligation on a man who holds himself out to a community as a surgeon, and practising, that he should possess the proper skill in surgery; that is, not the highest degree of skill that by study and experience the profession is susceptible of, or that is possessed by the most eminent surgeons, but the ordinary skill of the profession generally, such degree of knowledge and skill as surgeons commonly possess, such as is common among surgeons who practise that profession; but that want of such skill would not make the surgeon liable, unless it was also shown that the injury complained of resulted from and was caused by the want of such skill as a surgeon is required to possess.

The defendant's counsel excepted to this charge so far as it relates to the degree of knowledge and skill a surgeon should possess.

As to the declarations of Daniel C. Wilmot, which the defendant claimed to have proved, to the effect that he, Wilmot, had agreed on that Friday to take the boy to the defendant's office the next Sunday thereafter, no request was made to charge in relation to the evidence as to such declarations; but both of the counsel who argued the case for the defendant stated to the jury that they did not claim that such declarations were evidence in chief to prove the fact of such agreement, but that they were evidence tending to discredit and impeach Daniel C. Wilmot, and the case was so argued to the jury on both sides, *and the court so charged the jury*. After the court had charged the jury, the defendant's counsel excepted to the charge on this point, claiming then that such subsequent declarations of Daniel C. Wilmot were evidence in chief. The court then informed defendant's counsel that the charge was as they claimed in their argument to the jury, but that the court would state in the exceptions the facts, so that the Supreme Court might decide whether, under such circumstances, they were entitled to have their exceptions allowed, and if so, the error, if any, might

be corrected by the Supreme Court. The facts were stated for that purpose.

As to what the defendant's counsel claimed, as heretofore stated, as to the effect of mismanagement, negligence, or want of proper care and attention on the part of the plaintiff, and those, other than the defendant, having the care and management of him, the court charged the jury, as to this branch of the case, and its effect on the rights of the parties, and upon the damages, to the satisfaction of the defendant, and so that no exception was taken, except the court did not charge that if damage or injury resulted, *in part*, from the mismanagement and negligence of those having the care and management of the plaintiff, that the plaintiff could not recover, — and for omission so to charge the defendant excepted.

The jury returned a verdict for the plaintiff.

Appealed.

FOR THE DEFENDANT.

The negligence of those having the care, charge, and custody of the plaintiff was not merely *permissive*, like permitting, negligently, a child to play in the public highway, or otherwise be in the way of danger; but is active, affirmative negligence.

In a case of mere permissive negligence, — permitting a child to be improperly in the highway, — it was held in *Robinson* v. *Cone*, 22 Vt. 213, that if the child were injured by the negligence of the defendant, he would not be precluded from his redress; that if the defendant knew the child was in the highway, he was bound to exercise proportionate watchfulness and the utmost care. That case was decided mainly upon the authority of the case of *Lynch* v. *Nurdin*, 1 Ad. & El. N. S. 28 (41 E. C. L. 422), in which a similar decision has been made. And the similar decision in *Birge* v. *Gardiner*, 19 Conn. 507, was also made upon the authority of *Lynch* v. *Nurdin*, and upon the authority of these two cases, and upon a like state of facts, the same

decision has since been made in Connecticut in the case of *Daley* v. *Norwich & Worcester R. R. Co.* 26 Conn. 591.

But the case of *Robinson* v. *Cone* is opposed to the decision in *Hartfield* v. *Roper*, 21 Wend. 614, and to the decision in *Wright* v. *Malden & Melrose R. R. Co.* 4 Allen, 283, in both of which, negligence on the part of the parents in allowing the child to be in the way of danger, was held to preclude the recovery, by the child, of damages for injury received.

And the case of *Lynch* v. *Nurdin* has been questioned in *Lygo* v. *Newbold*, 9 Exch. 302; S. C. 14 Eng. L. & Eq. 507.

But the negligence on the part of the parents in the case at bar is, in its character and in consequences, entirely different from the permissive negligence of the parents who allow their child to be in the way of danger; and therefore the cases cited above do not control the decisions in this case. Here the parents knew the danger of the child and had the means of preventing the injury, and neglected to use them, and permitted the child to remain in danger, and were also, as the testimony tended to prove, guilty of positive mismanagement in the care of the child.

The case, in its facts, is like the case of *Holly* v. *Boston Gas-light Co.* 8 Gray, 123.

The distinction between the two classes of cases is the difference between permitting a child to be in the way of danger, and permitting a child, known to be in danger, to remain in danger.

And there is this further difference between the case of *Robinson* v. *Cone* and the case at bar: in *Robinson* v. *Cone* the injury to the plaintiff was the result of direct force, exercised and controlled by the defendant, and the reasoning of the court was directed to and upon that state of facts; while, in this case, the negligence on the part of the defendant, if any, consisted in the omission of any affirmative act, and the child was all the time in the care and under the control of its parents.

FOR THE PLAINTIFF.

1. The objection of the defendant that the sayings of the *prochein ami* ought to have been received and considered as testimony in chief, is not well taken. *Vaughan* v. *Porter*, 16 Vt. 266.

2. The charge of the court, as to the degree of knowledge and skill in his profession a surgeon is required to possess, was correct. *Patten* v. *Wiggin*, Am. Law Reg. 1862–3, 401; 1 Hilliard on Torts, 2d ed. 253.

3. The court did not err in omitting to charge the jury that, if the injuries resulted in whole or in part from the mismanagement of those having the care and management of the plaintiff, the plaintiff could not recover.

1. Even if that be the law applicable to cases of this sort, the defendant was not, under the circumstances of this case, entitled to that charge.

The defence set up was: 1st. That the arm was well and skilfully set and dressed. 2d. That the loss of the use of the arm resulted from the peculiar nature of the injury, and from the fault and negligence of the father in not bringing the plaintiff to the defendant's office, to be dressed and attended, as he agreed to do, and from other want of proper care and attention.

What evidence was given tending to show that the plaintiff was to be taken to the defendant's office to be treated, which was neglected, the exceptions do not state; but we are to conclude that whatever might have fallen out, of that character, was disposed of in the course of the charge in connection with the whole evidence, to the satisfaction of the defendant, so that the court below considered it of no importance to state. We are to presume that the charge was correct, and sufficiently comprehensive, and that what evidence there might have been tending to show want of care, was properly disposed of by specific directions, as was the evidence in relation to the plaintiff being carried to the defendant's office.

2. The exception is not properly before the court. There was no request made that the court would charge in a particular way, and so no refusal. The exception is only to an *omission* to charge. It is not sufficient that counsel shall say, in the course of argument to the jury, that he presumes the court will charge in a particular manner.

3. But the proposition is not sound law, to the extent claimed, and so the court was not bound to notice it. *Vaughan* v. *Porter*, 16 Vt. 266.

The opinion of the court was delivered by BARRET, J.

In this action the plaintiff claims to recover damages for injury sustained by reason of the unskilful and negligent manner in which the defendant dressed, treated, and attended the plaintiff's fractured arm.

A question is made as to the instructions given to the jury touching certain sayings of the plaintiff's father. Those sayings had been treated, by counsel on both sides, in the argument to the jury, as bearing only on the credit of said father as a witness testifying for the plaintiff to material facts in the case. The court, in the charge, had given instructions conformable to the views taken by counsel in the argument. No prior request had been made to the court on this subject. After the charge had been given, the defendant's counsel requested the court to instruct the jury that said sayings of the father were to be regarded and considered as evidence in chief. These facts are certified to this court for the purpose of having us decide whether the defendant was entitled to exception on this point. In the opinion of this court, the defendant was not entitled to exception. If the defendant claimed any special force or character, or application for this evidence, he should have made it known before the close of the argument. On the general subject we adhere to the rule pronounced in *Vaughan* v. *Porter*, 16 Vt. 266, and reasserted in *Cady* v. *Owen*, by POLAND, C. J., 34 Vt. 598. But the present case goes beyond those cited, and asks the court, in favor of the party, to repudiate the character and application which he has claimed for the

evidence in his argument to the jury, upon which character and application the counsel for the other side, concurring with his opponent, has also argued the case to the jury, and requires the court to put the evidence to the jury in a new character, in a new application, and to lead to entirely different results from that claimed for it in the argument. This certainly is a novelty in practice. It is understood to be the object of an argument, among other things, to apprise the court of the views and reasons of counsel as to the evidence, as it stands related to the legal propositions involved in the case, and to apprise the opposing counsel of the same things, and enable them to present their views and reasons to meet those of the other side; and still further is it an important and leading object of the argument to bring to the consideration of the jury the various elements and features of the evidence as bearing upon the various propositions of fact which the jury are to pass upon, and aid them in arriving at just results from the evidence as to those propositions.

The course proposed and pursued by the defendant's counsel in this case would thwart all these purposes and objects; and not only so, but would directly tend to embarrass the court, mislead opposing counsel, and confuse and confound the jury.

We, therefore, put our decision of this point solely on the ground that the defendant was not entitled to the exception, without considering whether the view embodied in his unreasonable request was correct or not. We think the court did not err in disregarding the request.

The point made in the exceptions upon the part of the charge that related to the skill required of a person holding himself out and undertaking to practise as a surgeon, we have no occasion to take time with, as it is not really insisted on and urged in this court. We remark, however, that, taken in its relations to the declaration and the evidence, it would seem to be entirely proper, and as favorable as counsel could claim for their client, unless they would have him take refuge in the character of a quack, from the consequences of his practice as a professed surgeon.

The most important feature of the case is presented by the exceptions to the omission of the court to charge, 'that if the damage or injury to the plaintiff's arm resulted, *in part*, from the mismanagement and negligence of those having the care and management of the plaintiff, that the plaintiff could not recover.'

The court had given a full and satisfactory charge upon every other feature and theory of the defence, and of course had told the jury that if the defendant had exercised the requisite skill, care, and attention in dressing and treating and attending to the fracture, he would not be liable; and also, that if the damage or injury resulted wholly from the fault of those in charge of the plaintiff, the defendant would not be liable. Upon the case as situated under these points and features of the charge, the request not complied with assumes, and was made upon the assumption, that the jury should find that the damages and injury were caused, *in part*, by unskilfulness and negligence of the defendant, and upon the assumption that the defendant would be liable, unless the putting of that point to the jury in the terms of the request would shield him. Every other theory and ground of defence was made available to him by the charge given, and he was found liable notwithstanding. The point, therefore, is this: whether, if the failure of the plaintiff to get a sound arm resulted, *in any part*, from the mismanagement and negligence of those having charge of him, the defendant would not be liable at all in this action.

This question is to be considered and determined with reference to both the law and the evidence applicable to the point.

It is to be noticed that, upon the evidence, there is no ground of pretence that any mismanagement or negligence had occurred prior to the Friday after the original dressing, at which time the defendant was called in, and examined the condition of the limb and of the patient.

The evidence, and the respective claims of the parties, as to the agreement on that Friday about the plaintiff being

seen by the defendant on the following Sunday, or Monday, or Tuesday, were submitted to the jury with satisfactory instructions.

Hence, the question really is, whether, upon the evidence, the defendant could be found liable in this action, even though the failure of the plaintiff to get a sound arm resulted, *in part*, from the mismanagement or negligence of those having charge of the plaintiff. If he could, then he was not entitled to have his request granted; if he could not, then it should have been granted.

It seems to us quite clear, that, upon the evidence, the defendant might well have been held liable, even though the jury should have found that the damage to the arm resulted in part from the alleged mismanagement or negligence of those having charge of him.

If the jury should have found, as they might on the evidence, that the improper manner in which the arm was dressed and kept till the Sunday after the accident, had brought it into such condition that the plaintiff must inevitably have a defective arm, the defendant would be liable to an action, even though it should be found that mismanagement or negligence in those having charge of the plaintiff may have aggravated the case, and rendered the ultimate condition of the arm worse than it otherwise would have been. The cause of action would have become perfected before the alleged mismanagement or negligence would have supervened. There is no pretence that the parents or attendants of the plaintiff had anything to do with the dressing of the arm. If the jury had found that that dressing was such, when continued according to the directions of the defendant, that it would produce a defective arm, and had that effect, then the right of action would have been perfected though the ultimate result might have been aggravated by mismanagement or negligence. In the cases supposed, such supervening mismanagement or negligence would bear only on the measure and amount of damage, not on the right of action.

If the defendant would have been liable in either of the supposed cases, then of course he was not entitled to have his request granted. In this respect the case would stand by analogy upon the same ground as a common class of cases, particularly for recovery of damages caused by alleged defects in highways. The liability of the town is established, the injury proved, and resulting effects become the subject of inquiry; whereupon the town claims, and endeavors to prove that, owing to mismanagement or negligence in treating the injured party, the consequences have been aggravated. Such showing on the part of the town does not touch the cause and right of action, but only the measure and amount of damages.

And here it may be well to remark that this just illustrates and makes plain the distinction to be taken between the case before us upon the precise point made by the exceptions, and all the cases cited by the defendant's counsel as applicable to it.

In those cases the alleged negligence on the part of the plaintiff was simultaneous and coöperating with the alleged fault of the defendant, an element in the very transaction which constitutes the alleged cause of action. The contributory negligence on the part of the plaintiff, in all the cases that have been held to preclude his right of recovery, has entered *the creation of the cause* of action, and not merely supervened upon it, by way of aggravating the damaging results.

These views leave this case to stand upon common principles by which a person is subjected to liability for the consequences of his wrongful acts and neglect, and as the case is made up, it would seem that the defendant has had accorded to him every legitimate ground and means of defence. The exceptions state, as to what the defendant's counsel claim as to the effect of mismanagement, negligence, or want of proper care and attention on the part of the plaintiff, and those other than the defendant having the care and management of him, the court charged the jury, as to

this branch of the case, and its effect on the rights of the parties and upon the damages, to the satisfaction of the defendant, and so that no exception was taken except the court did not charge that if the damage or injury resulted, in part, from the mismanagement and negligence of those having the care and management of the plaintiff, the plaintiff could not recover.

In the view we take of the case, we do not find occasion to go into any general discussion of the subject as it is involved in, or related to, the cases that have been cited. This case stands upon simple and familiar principles in no respect in conflict with any of the decided cases, and directly sustained by some, so far as they stand upon concurring analysis. *Robinson* v. *Cone*, 22 Vt. 213; *Birge* v. *Gardiner*, 19 Conn. 507; *Daley* v. *Norwich R. R. Co.* 26 Conn. 591."

CHAPTER IV.

FRACTURES NEAR WRIST-JOINT.

CLAPP *v.* WOOD.[1]

THE plaintiff fell from his horse, in 1854, fracturing one of the bones of the fore-arm and dislocating the other wrist.

It appears from the evidence that the defendant was in attendance upon the case only long enough to set the bone, as he supposed he did, and reduce the dislocation, *another physician being called in the next morning.* This latter physician died before the trial came on.

At the time of the trial the dislocated wrist-bone protruded, the fractured bone was not united, the hand was twisted in towards the body, and the whole arm was withered.

Verdict for the plaintiff, $1,000 damages.

Motion for a new trial. *Overruled.*

Appealed to Supreme Court.

WOOD *v.* CLAPP.[2]

CARUTHERS, J. "The defendant held himself out as a physician and surgeon, and, as such, was called in by the plaintiff to treat a case of dislocation or fracture of the arm, occasioned by a fall from a horse. He adopted a course of treatment, as it is charged, which resulted in serious and permanent injury to the plaintiff. For the injury thus produced

[1] Boston Med. & Surg. Jour. vol. lvi. p. 148.

[2] 4 Sneed (Tenn.) R. 65.

by such unsuccessful treatment, this action to recover damages was brought. It seems, from the proof, that the plaintiff or his friends, very soon, perhaps after the first or second visit, became dissatisfied, and called in other physicians, and dismissed the defendant. A good deal of professional and other evidence was introduced on the subject of the proper mode of treating such a case, professional etiquette, &c. The jury found a verdict against the defendant, and assessed the damages at one thousand dollars, for which judgment was given. A motion for a new trial having been overruled, the defendant appealed in error to this court.

If the law was correctly charged, there is no ground upon which the judgment can be reversed. The charge of his honor is, in substance, that any one who assumes to be qualified for the exercise of any profession, art, or vocation, is responsible for any damages which may result to those who employ him from the want of necessary and proper knowledge, skill, and science which such profession demands. A man who enters upon the legal profession and solicits business is required to have such an amount of legal learning as will enable him to discharge with reasonable skill and ability the duties incumbent upon him in his profession. If, from want of such knowledge and skill, or a proper degree of industry, diligence, and attention to business intrusted to him, his client sustains injury, he is responsible in damages. The same rule applies to a physician. He impliedly contracts with those who employ him that he has such skill, science, and information as will enable him properly and judiciously to perform the duties of his calling. If he should be deficient in these respects, he has violated his contract, and must account in damages for any malpractice by which those who employ him sustain injury. This is the general rule applicable to all professions and avocations in which men are employed to act for others in any particular department of business requiring skill, art, or science. The law does not, however, require the *highest degree* of skill and science, but only such reasonable degree as will enable the person safely

and discreetly to discharge the duties assumed. The failure of a course of treatment is not by any means conclusive of that want of professional skill by the practitioner; as such a rule would be harsh and unreasonable in application to any art or profession, and endanger the most faithful and best informed. In application to this particular case, the court instructed the jury that the defendant was only responsible for his own conduct, and not for that of those who succeeded him in the management of the case.

It is objected to this part of the charge that it does not specifically instruct the jury, that if the same treatment commenced by the defendant was continued subsequently by other physicians, and that it evinced a want of reasonable skill from which the injury resulted, the defendant, if liable at all, should only be held responsible for a just proportion of the damages. If this had been proper, it would have been the duty of the defendant to have called for it, before the court can be put in error. But we are not aware of any principle which would justify such a charge. He certainly went far enough when he told the jury that the defendant was not liable for the conduct of others, but only for the injury produced by his own want of skill or judicious treatment. If the fact were so, it would be no excuse for him that others were equally unskilful, and continued his malpractice. We think the charge laid down the law correctly in every respect. There is no profession in which the members should be held more strictly liable for want of proper skill and science, and due and faithful attention to their duties, than that of medicine. The health and lives of the people are in their hands, and but few are qualified to judge of their pretensions. *Judgment is affirmed.*"

In the absence of the record of the testimony in this case, the decision of the Supreme Court seems to be most unjust. The result of the treatment was most disastrous, but that this result depended upon anything the first physician did or did not do, passes belief. The patient may have had

abundant reason for dismissing him, but patients frequently do this without reason. Thousands of times reputable physicians are summarily dismissed and the veriest charlatans employed instead, from whose treatment most serious results have followed, yet, from the very absurdity of the thing, patients have never before or since this case, so far as published cases go, instituted an action against their first physician. The nearest case to it, so far as I can find, is that of *Noyes* v. *Allen*, S. C. Cambridge, Mass. Jan. Term, 1856, Boston Medical and Surgical Journal, vol. liv. 109.

BIGELOW, J. *History.* — Noyes, while pursuing his business as peddler in Lowell, was thrown from his sleigh, being turned over upon the frozen ground which was covered with a slight fall of snow. He was carried to the Washington House, when Dr. Allen was called, who, after making such examination as he thought necessary at the time, occupying from ten to fifteen minutes, stated that he thought no bones were broken ; but finding him cold, faint, and suffering from a violent shock to the whole system, — complaining of his right side being injured, more particularly his hip, elbow, and shoulder, — directions were given to get him warm, put his feet into warm water, rub him thoroughly, and apply hot spirits and wormwood to the injured parts. There was some difficulty in the use of the arm, — supposed to arise from laceration of the ligaments in the elbow-joint, as no fracture was detected in making the natural movements of rotation and flexion. Dr. Allen called the next morning (the previous visit being made the night before), and, on first inquiring, was assured by patient that he was much better, and thereupon, without asking any examination of the arm or further treatment, paid and discharged his medical attendant. The next time Dr. A. heard of the case — having no suspicion but that this stranger had perfectly recovered and was about his usual business — was nearly three months afterward, when a suit for " breach of contract " was served upon him, claiming damages to the amount of $5,000 for a broken arm. On the part of the plaintiff, five physi-

cians, neither of whom appears to have been members of the State Medical Society, testified positively that the radius was broken at its neck, producing a bony protuberance; that such an injury only could account for the symptoms manifested at the time of the accident, and that no other fractures or injuries of the joint could explain so well the present appearance of the arm. For the defence six of the most intelligent medical gentlemen of the State testified that the head and neck of the radius were not displaced, nor was there any evidence that this bone had ever been broken.

Verdict for defendant.

HASKELL *v.* CROSS.[1]

(S. C. Salem, Mass.)

"THE plaintiff, Haskell, broke her wrist in July, 1870. Following the treatment, considerable pain was experienced in the hand and fingers, which plaintiff attributed to unskilful surgery on the part of the defendant.

Dr. Cross testified, that two splints were put on with only the customary tightness; that these were frequently loosened by partially unrolling and replacing the bandage (all of which was confirmed by the testimony of a neighbor woman who was present at the setting of the limb); that he had made *sixteen* visits in the treatment of the arm; that the pain complained of was not greater than might have been expected under the circumstances, *the patient being seventy-five years old*, of a rheumatic family, and herself subject to rheumatism all her lifetime; that he had been frequently called to attend her for rheumatic difficulties, and that both hands had frequently suffered from rheumatism. (This was also corroborated by several witnesses.)

The entire *Haskell* family testified, that but one splint was put on, and that bandaged with cruel tightness, and that the bandage was not loosened for a fortnight.

[1] Medical and Surgical Reporter, May 24, 1873.

The plaintiff admitted having had a good deal of rheumatism in the right hand and wrist, but that she had never had any of any account in the left, the fractured wrist.

E. P. Hurd, M. D., testified, that the plaintiff, after Dr. Cross ceased his attendance, applied to him for relief; that he found some swelling about the hand and fingers, with considerable stiffness of the wrist and metacarpal joints, but not more than the recency of the fracture might warrant, — this being about a month after the injury; that much pain was complained of, for which he prescribed.

Dr. Gilman Pike treated the hand with electricity, testified that Mrs. Haskell came to him with a 'dead' and 'useless' hand; that he knew nothing of surgery.

Dr. Thompson, Homœopath, testified, that the injury was an oblique fracture of the lower end of the radius; that the bone had never been 'set,' and that there was shortening of three eighths of an inch; that Bond's splint would have given a better result.

This closed the 'expert' testimony on the part of the plaintiff. The defendant brought forward as expert witness, besides Dr. Hurd, Dr. Hodges of the Massachusetts General Hospital, and Drs. Pearson and Perkins of Salem.

These gentlemen all made a patient and thorough examination of the plaintiff's arm and hand in the presence of the jury. They were unanimous in pronouncing the wrist and hand all right, and the results of the surgical treatment by Dr. Cross excellent. All of them affirmed that they could not find where the bone was broken, and only one of them testified that he should have known that there had been a fracture. They all declared that the amount of pain was no greater than could have been expected, considering the advanced age of the plaintiff and her rheumatic habit, and that the *bandaging* at the time of the fracture was not the cause of that pain.

The case being given to the jury, they returned a verdict for $300 and costs for the plaintiff."

Notwithstanding the exhibition of the utmost care in the

treatment of fractures in the lower third of the fore-arm, there is always more or less stiffening of the wrist and fingers, a result due almost, if not entirely, to fibrinous exudations into and around the sheaths of the tendons, and to the adhesions which necessarily follow this fibrinous exudation, where the parts are kept at rest for a long time.

In rheumatic patients this is notably the case. Here the tendons and ligamentous tissues near the seat of the fracture almost necessarily become implicated in the inflammatory changes which occur during the process of repair. Such, doubtless, was the case in *Haskell* v. *Cross*. It occurs to all surgeons to see numerous cases of this kind.

That anchylosis in the wrist may not be the result of an extension of the inflammation into the joint, surgeons are not prepared to deny; but as Professor Hamilton has remarked, "The fingers are quite as often thus anchylosed as the wrist-joint itself, a circumstance which is quite inexplicable on the doctrine that the anchylosis is due to an inflammation in the joints." (Report on Deformities.)

It will be observed, upon a little reflection, that as the outer edge of the lower end of the radius is tilted up, the hand and wrist have a radial inclination, so that the bones of the wrist preserve their relations to the radius, precisely as before the fracture. So that it seems highly improbable that any portion of the anchylosis can depend upon malposition of the articulating surfaces. But although the articulating surfaces retain their relative position, inflammation, I conceive, may extend *into* the joint, and so result in injury; but over this, as over the inflammation in the sheaths of the tendons, in rheumatic cases, the surgeon has but little, if any control, and should not therefore be held responsible.

In respect to the deformity that follows fractures in the lower third, Dr. Mott, of New York, bears testimony as follows: —

"Fractures of the radius within two inches of the wrist, where treated by the most eminent surgeons, are of very difficult management so as to avoid all deformity; indeed,

more or less deformity may occur under the treatment of the most eminent surgeons, and more or less imperfection in the motion of the wrist or radius is very apt to follow for a longer or shorter time. Even when the fracture is well cured, an anterior prominence at the wrist or near it will sometimes result from swelling of the soft parts."

Dr. Hamilton (Deformities after Fractures) bears similar testimony. He says further: "This swelling continues much longer in old and feeble persons than in the young and vigorous. It is pretty generally proportioned to the amount of anchylosis existing at the wrist and finger-joints, and it disappears usually, *pari passu*, with these conditions. There can be no doubt that this phenomenon is due to an effusion, first serous and subsequently fibrinous, along the sheaths of the tendons; and it is equally present after *sprains and other severe injuries* about this part, as in fractures. In many cases, however, its prolonged continuance and its firmness have led to a suspicion that the bones were displaced, a suspicion which only a moderate degree of care in the examination ought easily to dispel.

A similar effusion, but in less amount, is frequently seen also on the back of the hand below the annular ligament. When both exist simultaneously, the appearance of deformity and of displacement are greatly increased."

At Professor Agnew's (Clinic, Oct. 25, 1871) there was a case of anchylosis of the wrist and fingers, following a Colles' fracture, which had occurred about eight weeks before. Perfect union had taken place, with, however, some deformity.

In his clinical remarks he said: "Difficulty of motion in the neighboring joints was a very common sequel of this fracture, and even under the most careful treatment, was found to exist in a majority of cases. He thought it due not so much to injury to the joint itself, as to adhesions of the tendons over the seat of fracture, by which their play was restricted."

VOLMUTH *v.* HATHAWAY.[1]

(Mass. S. J. Court, Nov. Term, 1856.)

ACTION OF TORT for alleged malpractice in treatment of fracture of the bones of fore-arm. *Ad damnum*, $10,000.

ABSTRACT OF TESTIMONY. — FOR PLAINTIFF.

Volmuth, plaintiff: "Was exercising and fell. Put hands behind back and fell on them. Dr. Hathaway came first. Dr. Kelly came when arm was set. Dr. H. came in twenty-five minutes or half an hour, after bones were broken. Not swollen then. He set arm, put it in a sling, and took me to boarding-house and put me in bed. They pulled on my arm, and Dr. H. put on two boards, shingles, one and a half inches wide, from elbow to ends of fingers. Thumb was all squeezed in — shingle went over thumb. In eight weeks or so, thumb all dried up and skin loose. Doctor cut off dry skin. Cut off skin at his office. He put cloth between wood and thumb. After nine weeks, he cut off end of one board, it hurt me so much. At first dressing, the bandage was as tight as he could put it on. Hand swelled to ends of fingers. Fingers twice as thick as usual. I suffered pain — not much — in fingers, as too tight. First felt pain in fingers on second day. Began to swell first day. On second night so much pain in fingers I could n't stand it. I told doctor, and he said it made no odds — it was nothing — would be over in a few days. Doctor came first, second, and third day, then told me to get up. Then he opened arm, took everything off, and looked at it, felt of it, and put on bandage, &c., as before. Gave me no particular directions. On fifth day opened arm as before, and examined it. Opened arm six or seven times in first two weeks. Then I began to go to his office. I asked if I could go to his office, as it would cost less. He said 'all right.' Went to office three times a week for a while.

[1] Boston Medical and Surgical Journal, February 5, 1857.

Arm opened first time. Some weeks he opened it twice a week. Said it 'would get along well by and by.' He always felt of it and examined it. Arm was cracked for seven or eight weeks after broken. Told me, as often as I came to office, to eat as much meat as I could, and arm would unite. He said I didn't eat meat enough. Treated me twelve weeks, about. When last at office told me to go to work, for a week, or fortnight, or month, and then, if not better, to call again at office. He would then take out the splinter, as there must be a splinter there, and arm would unite better. Said nothing else. Went home and told friends, and all said best I could do was to go to Dr. Roesler. When last at office could not move fingers, were all stiff; could only bend them a little. There were some small blisters on back of hand. That was all. Could not raise arm to head. Could not turn arm then as much as now. When I went to New York could only bend fingers a little, except with other fingers. Flesh was all gone on arm. Arm wasted to half size. Was skin and bone. Had been so ever since Dr. H. had treated arm. Was so about two weeks after treatment began. Arm tied so tight, became all blue. Showed Dr. Roesler my arm. Stayed with him three months. Had been in New York twelve or fourteen days when he performed operation. Dr. Fischer, Dr. Katzenmeyer, and some others present. On return from New York, stayed about a week in Worcester, then came to Boston. Did no work after accident. Used arm for no purpose. Both shingles were on nine weeks — then one only. When last at doctor's office had starch bandage on. He removed the starch bandage one week after put it on, cut it open and felt arm, and slipped it on again. Skin went all off back of hand about four weeks after accident. Had arm in sling twelve weeks. No one else touched it. I followed doctor's directions. My Society thought it best to have watchers. Hand was swollen for nine or ten weeks after breaking. About two weeks after it, doctor gave me medicine. No dressing ever put on; but doctor put on shingles, splinters, and drew a blister where

arm was broken. This blister was after eight or nine weeks. Kept on two days. Doctor gave no reason for it. When he took off blister, he cut the places with scissors and let out water. After return from New York, saw Dr. H. in Worcester. He asked me how arm was. I said not much better, and he asked to look at it. He asked what the cut in the arm was. Told him doctors in New York operated on it. He said, 'Did n't I tell you to call at my office, if your arm was no better? I could have cut on it as well as those doctors in New York.' He said he was sorry for the accident. I was very healthy before the accident.

Cross-examined. Belong to Turnverein Society. Can't tell at what end doctor began to wind bandage. He cut end off splinter to ease thumb, eight or nine weeks after accident. Never paid doctor anything for services. He did not send me bill. Doctor put no liniment or salve on arm. He gave me some bark after about two weeks. Friends sat up ten nights with me. I only drank once, on Fourth of July. Then Mayberger and me drank a little beer. Went to New York. Friends said Dr. Roesler was the best doctor — they knew him in the old country. Boarded and lodged with him three months. No other patients did so. In bed four weeks; three months before went out of house. Dr. R. said it was a poor looking arm, and was not set. He called other doctors, and all agreed on operation. No one advised me to bring this suit. . . . . At last visit doctor told me to do light work. Never tried to lift with my hand.

Dr. Roesler: Physician for seventeen years at Wirtemberg, and then for four years at New York. First saw plaintiff in September, 1855, at my office. Investigated injury. Saw no external wound. The skin was kind of peeled away, but there was no regular wound. There was a *gangrenous ulceration* about lower part of thumb. Skin of back of hand between fingers had a *gangrenous* appearance. The radius was separated. The ulna was as if broken and cured again, but was not in regular shape, and as it ought to be. He could not move his thumb and fingers, but I could. The

first thing was to heal the gangrenous ulcerations. Then the first thing was an operation, as it was impossible to replace the arm; it was too late. Made the operation seven, eight, or ten days after I saw him. Operation was a re-section. Three surgeons present. It was necessary to cut off two ends and set them together again, as they were sick. I have the pieces cut off. (Two pieces of bone, of a dark color, between an inch and a half inch in length, were here produced; one quite conical, with the apex well rounded, the other also conical, with a pointed apex, but on one side presenting a rough, jagged surface, as if an irregular fragment had been broken off.) If we had not cut these off, the arm would never have healed again. One was beginning to be attacked by *caries*, and if that has taken place, arm never can be joined together again. Pieces of bone look now of same color as when taken out. At incision, courses of *fistules* were found next the bone, which the surgeon must take out. They were destroyed. After operation, put on bandage to keep parts in regular form and position. The bone (radius) was united before he left New York. He had a fever and was very sick, and we gave him medicine. When he came to me the ulna was twisted. There was a want of rotary motion in the radius, because it had not been united. The want of it now is because the soft parts were destroyed near the broken part, and because of the fistules. Fistules were occasioned by bones not uniting, then when bones ulcerate, the fistules appear. If bandage too tight, circulation becomes impossible and ulcers come forth. If pieces of bone had not been cut off, the result would have been that the caries would have increased, and amputation become necessary. In case of fracture, bandage should be neither too tight nor too loose, but one which prevents all movement. A little swelling of hand not improper. Hand will swell without bandage. The two ends of bone were found to be half an inch apart. The fracture was not difficult to cure, if no other circumstances made it difficult. In a healthy patient of twenty-one years, five or six weeks is the ordinary time

for a cure. The bandage should not be removed until five, six, or eight days, unless extraordinary circumstances require it. Should not be often removed, unless there is a wound, or swelling, or pain. If both bones are broken, good practice requires four splints. Plaintiff's arm very much now as when he left me — bones a little stronger. When he came to me, the arm was of full size, except broken part of radius, which was swollen by the bandage, but it was possible easily to feel the broken part through the flesh. In the operation I was assisted by Drs. Fischer, Katzenmeyer, and Schuberg.

Cross-examined. Keep an apothecary shop in New York, Canal St., corner of Allen St. Advertise only when I change my residence. Not a member of New York State Medical Society. Am only a member of a German Medical Society. Practise entirely among Germans. Perform a great many operations — few do as many as I do. Do not know what previous treatment of arm was. It was in a miserable condition when it came to me. There was inflammation, which began to be gangrenous on lower part of arm and fingers. Arm somewhat swollen. Could not see fracture from outside. After bone is cut off, the blood in it grows darker. I use four splints for fractures. The operation has shortened the arm three fourths of an inch. When he came, there was no opening in the arm. Gave him medicine for the fever which followed operation, — quinine, phosphoric acid, and cinchona. Gave cooling medicine during fever; when fever declined, and he was weak, gave strengthening medicines. After first week of fever, applied warm chamomile poultice, and put salves on wound. He was so sick he remained in bed four weeks; then I let him go about the room. He was two months in one room. The third month he went out into the open air. Have not been paid for the operation and nursing, but the Turnverein Society paid his board. While I had a hospital, I had boarders; only took plaintiff to board, because very interesting case. By gangrene I mean destruction and festering of the soft parts, where the upper part is sick, and separates from the lower.

'Brandig' is the German word for gangrene. Soreness of the thumb was probably occasioned by too strong bandaging. Might be caused by splint pressing against it. I made only one cut. Found only one breaking of radius. Nothing materially wrong in ulna; direction a little wrong. After an operation of cutting off bone, arm always deformed. Radius and ulna can always be kept from coming together by a bandage. Arm cannot be better than it is now. He can pronate but not supinate. This is because the radius is shorter and callus has thickened; and because ulna not in right direction and bent a little. In similar cases of cut bone, patient cannot supinate. I never performed this operation before. The operation resulted better than I anticipated, though full strength will never come back to fingers. Am not disappointed with result. Plaintiff was in danger of his life about six days after operation. Continued so about a day and a half. Was twice out of his mind — a full night and a day. Friends inquired about him every day. Had a very high fever; was quiet and very weak. At place of cut, *common festering* came out. At time of operation, plaintiff was a 'healthy patient,' so called. Pasteboard is better for splints than wood. Where both bones are broken once, and ulna unites in usual time, and radius not, it is an extraordinary case. Have kept tables of my operations. Ulna and radius generally unite together — do not differ in time of union by a week. Do not know a single case where radius has not united, when bones are rightly put together. Will unite in five to seven weeks. Longest time I have known in effecting union, in properly set radius, is seven to eight weeks. Determined on an operation the first day I saw him. He told me his physician had dismissed him to go to work. I understood it as a dismission. I did not communicate with defendant relative to the case. Object of cutting is to find new and healthy bone, with vitality. If there is caries in fractured bone, an operation is necessary beyond a doubt. This was a case of simple fracture of radius. Have had not less than twenty cases of simple fracture of both

bones of fore-arm. I do generally correspond with the prior surgeon, but did not in this case, for reasons I prefer not to mention. The muscles which move the thumb were affected or destroyed by ulceration. No sound muscle was cut by me. I only cut out the sick parts of upper muscle. I used a chain saw. *Gangrenous ulceration* took place because the nourishment of hand and thumb had suffered, and the pressure on the thumb was so great that festering or ulceration took place, and scars were formed, and the muscles became weak. . . . . Extensor of thumb was pierced through with fistules. I did not cut it. Before I cut there was no possibility of movement in the thumb, but there was movement afterwards. None before, because the nourishment of the lower arm had ceased. Present partial motion of extensor is owing to present soundness of muscles which were sick before. Sick before, because the *joining of the fixing* of the muscles was not in order before. Knew this, because both ends of bone could be felt easily through flesh, which led to conclusion that there was festering in the part of the muscle which moves the thumb.

Dr. Katzenmeyer: Was educated at Munich; afterwards assistant physician at Heidelberg. Have practised two years here and one in Europe. Was present at operation. External appearance of arm atrophous — place of fracture slightly inflamed. Hand stiff and swollen, with traces of *gangrenous blisters.* Found one fracture of radius and ulna united by callus — not united in direction of axis. From external appearance, came to conclusion that bone was not rightly set, and that the ends of bone were carious. Concluded there was caries from the fluctuation and crepitation. Concluded there should be a re-section or an amputation of arm. I should have proposed amputation, but was convinced by the learning and experience of Dr. Roesler that the cutting off the ends should first be tried. Assisted at operation. Bone was laid open, and saw put to sick ends. After removing ends of bone, wound was drawn together, and left open in the middle to allow of the efflux of fistula.

Muscle of arm and ends of bone attacked by festering. No muscle removed from arm. Dr. R. took out about a spoonful of festering matter. After operation there was efflux of matter for several days. Saw plaintiff almost daily after operation. After operation, arm bound up with splints, and dressed, beginning from elbow. To prevent ulna and radius coming together, graduated compresses used. Arm placed in sling. Broken ends could not have been united without re-section. Could not have been a ligamentous union between ends. Impaired motion of thumb owing to weakening of muscles by festering. Fracture of radius simple. Simple fractures of fore-arm are easy to be known and treated. When plaintiff came to New York, not possible for him to attempt to labor. Arm not previously treated with care. In my opinion, radius never rightly set, for ulna not in right direction. As fracture was simple, could not but have been easily cured with proper treatment — *therefore*, I think it was not well treated. I ascribe the gangrenous appearance to tightness of bandage. Before operation, no motion of thumb. Present imperfect motion owing to shrinking and growing together of muscles. No part was cut or divided in the operation. Atrophous state of arm owing to too tight bandaging, which hinders circulation. Arm will never be restored to full use.

Cross-examined. Am physician, accoucheur, and surgeon — office in Second Avenue, in New York. Do not sell medicines. Not a member of New York State Medical Society — belong to a German Medical Society. Have performed such an operation once, seen it several times. I use four splints for simple fracture of fore-arm — splints of paste-board or gutta percha. Splints to be placed on four sides of arm. Greater safety in four splints. Not a partner of Roesler; called at his house almost every day, because intimate with him. After operation, bandages, &c., removed ten times in three months. First removed in six weeks after operation. Took away portion of bandage every day to clear arm. At operation three splints were used, with a fourth divided

across. The gangrene or festering on plaintiff's thumb and fingers, when I first saw him, was of dark color, and went through flesh to muscles. Dr. R. cured this, before operation, by external treatment only. Whole arm atrophous, caused by too tight bandaging. One of the fragments of bone was carious, the other resorbed. I should certainly have amputated on strength of external appearance of arm; because of atrophous condition of arm, because I knew there was caries, and because I knew there was formation of matter, or festering, in arm. All the bone that was affected with caries was cut off. Usual in surgery to amputate or re-sect for caries. Resorption shows bad putting together of bones. In case of caries in hip, would re-sect, under most favorable circumstances. The German word for fistula is *eiterung*. Operation of re-section does not of itself produce bad effects on muscles.

DEFENDANT'S TESTIMONY.

John E. Hathaway, M. D.: Am twenty-nine years of age. Have been in practice four and a half years. Was student at Medical College in Boston, four years as house-apothecary at Massachusetts General Hospital, and six months as house-physician. Paid particular attention to surgery, and saw nearly all the operations while at the Hospital. Have been city physician in Worcester. On 30th of June, 1855, was called to plaintiff. On examination, found ulna broken once about the middle transversely, and radius broken in two places, at both obliquely; once nearly opposite fracture of ulna, and again rather more than an inch below. Found a wound in arm whence blood was issuing, evidently made by end of bone protruding through. Cleansed blood from arm and stopped bleeding. Placed lint on wound, and put adhesive plaster upon it, to retain it in place, and to shut out external air. Padded splints and arranged bandages, reduced bones by extension and counter-extension with assistance of by-standers, kneading bones into position with hand. Placed one splint on back of arm from elbow to tips of fingers;

the other on front, from bend of elbow to middle of palm. Before applying lint, however, put finger into wound and took out two or three fragments or splinters of bone. While adjusting apparatus, Dr. Kelly came in. Seeing that by-standers appeared to recognize him, thought he might be their physician, so offered to give up case to him. He declined, but kindly offered to assist me. Took off splints, and let Dr. K. examine arm, and re-applied splints as before. Dr. K. and I got the bones into what we thought excellent position. Then applied roller bandage from fingers up to, and above, elbow. Bent arm (back splint having joint at elbow), placed it in sling, and suspended from neck. Placed plaintiff in my chaise and took him to his boarding-house. There had him undressed and put to bed. Took off sling and rested his arm on a pillow, in an easy position. Expressed himself easy and free from pain. Left him, with directions to keep quiet and avoid all stimulants. Told him, if arm felt hot and uncomfortable, he might apply cold lotions to ease it. Called next morning, found him sitting up; had been free from pain, but had applied cold water to arm in the night, to make it feel easier. Saw beer mugs all about room, with beer in some of them; also, on table near bed, a tumbler containing, apparently, port-wine sangaree. Reminded him of my directions to abstain from stimulants, and told him it was not safe to venture in that way. He said he had not drunk much. Examined arm, though not removing dressings. No swelling, such as often takes place; fingers not swollen. Think I called again at night. Called next day, and next. Secured bandage with pins. On third day removed apparatus. Wound was healing by granulation; washed arm and redressed wound; some slight oozing of matter from wound, with slight odor. Visited patient about once every day and a half for ten or fourteen days; then three or four times a week. On sixth day, removed apparatus to dress wound. Found it nearly healed; closed but not cicatrized; replaced splints, &c. After third or fourth week, patient visited me at my office. Up to this

time, arm doing very well. No particular action, however, and I feared high fever, but there was not so much of this as I expected. By third week, fracture of radius had become simple, by healing of wound. Union, in ordinary cases, takes place in four to five and a half weeks. At end of five weeks, began to be anxious for union in ulna. Conferred with Dr. Gage and other surgeons about case. At end of four and a half or five weeks, found ulna firmly held together, and in six or six and a half weeks there was union. Of course it had not yet become solid bone, but such that splint could be moved in a week. Showed arm to Dr. Gage, asked him to examine it. Made patient hold up arm, and we looked across it. Arm in excellent shape. So little distortion in any part, that one could not tell, by sight, where fracture had been. Could find seat of fracture by feeling. After this conference, appointed early day for patient to come again. Then applied starch bandage. Patient called three or four days after. Cut up bandage in usual way, and took out the limb. Applied a stimulating liniment to arm; tincture of camphor, soap, and volatile oil, with a little capsicum. Also used friction. Repeated use of liniment with friction, for three or four next visits. After eight or nine weeks, radius had stiffened a little — at one place rather stiff; at the other not so much so. Had in mean time given him a tonic, to be taken daily, before meals, known as 'compound iron mixture.' At this time applied, over seat of fracture of radius, to excite action, a blister. At next visit opened it and let out matter, and told him to exercise in the open air, to get appetite, and to eat meat and nourishing food. At the end of another week, found indications of improved action; washed arm, applied alcohol, and re-adjusted starch case. At end of about a week patient came again. This was his last visit. Examined arm, and found ulna very firm. Found some union of upper fracture of radius. His health was improving. Told him months, and even years sometimes, elapsed before perfect union in cases of compound comminuted fractures; that he must not be discour-

aged if he recovered slowly. Told him to flex his fingers, which were stiff from long disuse, and to lift light weights, and employ muscles of arm, in order to improve action. If he wanted an object, he might do some light work. Directed him to come again at end of ten days or a fortnight, and let me examine arm, and to continue calling, from time to time, till well. Informed him that, if treatment did not result favorably, and Nature refused to work a cure, there was a last resort in an operation. At present, sufficient time had not elapsed, nor was his health strong enough to bear it. He assented, as if he understood my views. I had, in fact, taken pains from beginning, to explain my movements to him, in order that he might coöperate. As he went out, he asked how much my bill was. I replied I had not made it out, but would have it ready for him at next visit. He never came again. At this visit, which was at end of eleventh or twelfth week, the shape of arm was good; fracture only to be found by feeling; arm somewhat reduced in bulk, but not wasted, and with the atrophous appearance which a healthy arm would have, when so long without exercise. Full motion nearly restored to fingers; could bend them, but not quite shut them. I could easily shut them myself. The front splint had been so wide that it had pressed against ball of thumb. Had put my director under it, and cut out a notch to ease thumb, and placed batting under the end. A little skin came off from thumb where splint rubbed. The operation I referred to was the seton operation. Had seen it tried and succeed. Intended to perform it only as a last resort. Bandages, when first applied, were not tight, but firm. There was no unusual swelling of hand or fingers afterwards; and no complaints of pain from patient. Ulna generally unites sooner than radius, which has a double motion. At last interview, upper fracture of radius considerably united, which was an encouraging symptom for union of lower. Should have waited ten or twelve weeks more before using seton. Regulated his diet, because his health was below par. When he left, there was nothing on thumb but a little eschar;

the skin had healed, but was not white. Between fingers, skin had been softened by perspiration. *No sign of gangrene anywhere, as we understand it.* At last interview, no sign of unhealthy bone at seat of fracture, and nothing to make me apprehend it. If there had been decaying bone, there would have been swelling of the limb, accompanied with pain, and an opening would have appeared. Felt no matter at seat of fracture. Matter would not have indicated dead bone. At last interview had no idea patient was going to withdraw himself from my treatment. Had heard no expression of dissatisfaction from himself or his friends. Some time after, asked some of the Germans why he had not been to see me, and was told he had gone to New York. Saw him a few minutes in the street, in Worcester, after his return. Saw scar and redness on his arm, which he said were made by the operation. Felt large callus. Asked him to pronate and supinate. He could do so but little. Expressed no dissatisfaction with my treatment; and I had no idea of any, till surprised by service of the writ in this case.

Cross-examined. Hole in integuments large enough for little finger to enter. Did not see the bone, — blood constantly discharging. Took out two or three pieces of splintered bone. Think these were all. Took out all I could remove with safety. Pieces removed shaped somewhat like a split pea. Would not have been justified in removing intermediate fragment of radius. This was about an inch long; though of unequal length, because obliquely broken. Think it could not have been split, without knowing it; may possibly have been cracked. The bones never got out of apposition after being once set. The intermediate fragment was sometimes moved out of place by the contraction of muscles. Impossible to keep it exactly in place, as least action would disturb it. Examined arm yesterday. Found a little curving out of the ulna, which did not exist when he left me. At that time ulna not perfectly firm and solid, as the perfecting of solidity of bone is a slow process; could probably have been bent at that time. Did not exercise

rotary movement of arm lest I should disarrange co-aptation of fragments. When I told him he might do light work, he spoke of filing (at pistol shop). Objected to his filing, but thought he might do some such work as holding pistol locks upon emery wheel. Thought also his employers might employ him to go errands ; as I particularly wished him to be in open air. The starch case, being left on, would prevent rotary motion and thoroughly protect limb. In case of compound comminuted fracture, patient may lose limb, if wanting in care. He did not disobey my directions, to my knowledege, in any way except by using stimulants as before mentioned. Did not preserve splinters of bone taken out by me.

Dr. S. H. Kelly : Am physician in Worcester. Was present at setting of arm, &c., by defendant. When I came in he asked me to examine arm, and removed dressing for that purpose. Found fracture of radius in two places, both obliquely, — and of ulna in one place, transversely. The fracture of radius was compound, with a wound in the integuments. Assisted at dressing. Made counter-extension, while defendant made extension. Bandage not too tight, certainly, and not too loose, but what is called firm. Was struck with skilful and neat way in which everything was adjusted. Patient made no complaint of pain, and appeared to feel easy. Saw defendant drive off with him in a chaise.

Cross-examined. Think I put my finger in wound, but took out nothing. Defendant showed me two splinters of bone taken out by him. Arm was not much swollen. In majority of cases there would be considerable swelling after such an injury. Such swelling would have effect to tighten bandage.

Thomas H. Gage, M. D. : Am assistant physician at State Lunatic Hospital, at Worcester. Graduated at Medical College in Boston, four years ago. Was house-surgeon one year at Massachusetts General Hospital. Practised at Sterling three and a half years before going to Worcester. Known

defendant since 1849, when we began to study together. Arm was shown to me by defendant at his office. Defendant removed dressing, and bared the arm, and I examined it. Patient held arm up, and I looked carefully across it. Made the remark that it was not possible to detect the place of fracture by the eye. Felt limb carefully with hands ; found well-united fracture of ulna, and feebly-united fracture of radius, which was broken in two places. Found a little callus at fracture of radius. Could distinctly feel intermediate fragment. Traced radius with hand from end to end, and found it in its natural position, especially two larger fragments, the intermediate oblique fragment being very slightly out of line. Very difficult for dressings to make impression upon it. Arm was in excellent and perfectly natural position, and in very good shape. Somewhat diminished in bulk, as would be expected. No swelling at all of arm or hand. Nothing out of the way with thumb. Saw scar on outer side of radius, as of recently-healed wound. Defendant replaced apparatus in my presence. In addition, we applied pads to keep the intermediate fragment in place. Do not know which of us suggested it. Arm appeared as if decidedly correctly treated hitherto. No evidence of bandages having been too tight. Good circulation in arm. Patient made no complaint. Ulna was as firm and strong as could have been expected in four or five weeks. *No sign of anything like gangrene or mortification.* Nothing to excite suspicion of there being dead bone.

Cross-examined. We talked together about general means of improving patient's health — also of starch bandage. An operation then would have been entirely improper. Traced ulna down carefully, as I always do, and found whole length in good position and fragments well united.

Winslow Lewis, M. D.: Have heard all the evidence in this case. Defendant's treatment, as described in his testimony, was perfectly correct in every detail. The case was a bad one, requiring unusual surgical skill. All compound fractures are more or less difficult. Air is admitted by ex-

ternal wound, and wound itself requires separate treatment. Fracture more difficult of treatment if comminuted. Fragments are constantly working out of apposition, under the action of muscles; and ends of bone, especially if obliquely broken, are apt to wound the nerves and vessels. Case also more difficult, of course, if both bones are broken. One cannot then serve as a natural splint for the other. The contraction of the pronator muscles would also embarrass the setting of the bone, and would tend to draw the fragments apart when once in apposition. The process by which union is effected is governed by no general law, but depends upon a variety of circumstances. The process consists of an irritation of membranes at ends of bone, which inflame, and a fluid called nature's glue is poured out, which attaches the fragments to each other. This fluid hardens, and becomes callus, which, in time, gives place to solid bone. A fracture like this one would have done well if cured in seven or eight months. Union sometimes delayed a year or more. Sometimes takes place with deformity or shortening of limb. Never heard of using four splints, as advised by German physicians. Even if no union takes place, the limb may be used for certain purposes. An operation is the last resort — is always more or less dangerous. Should advise seton operation to be first tried, except in case of death of bone. Presence of dead bone is indicated by inflammation, excessive pain, and a discharge through an opening in the integuments. Dead bone could not exist without such an opening being formed.

Examination not completed.

George Hayward, M. D.: Heard evidence of defendant. His treatment was entirely proper and correct. It was just such as I should have pursued. Case was a difficult one from the nature of the accident, plaintiff having thrown his arm behind him and fallen upon it with the weight of his body. Treatment more difficult because fracture was compound, comminuted, oblique, and of both bones. In cases of compound fracture, external wound to be healed first. Per-

manent bony union does not generally take place sooner than a year. Should not have thought of performing an operation in this case at the end of twelve weeks. Defendant's direction to patient to do light work, &c., at the end of this time, was good. Should have delayed performing an operation in this case till other means failed, and Nature refused to work a cure. If the arm had come under my care in the condition described by German physicians, I should have tried starch bandage and electricity. Should not have attempted an operation. If operation afterwards became necessary, should have performed seton operation as particularly adapted to this case. Nothing in defendant's evidence to indicate dying of the bones. Dead bone always indicated by inflammation and opening in the integuments. The pieces of bone of radius exhibited by the German physician are not decayed. They are perfectly healthy in appearance. There is nothing in their appearance to justify excision. No caries. Fragments also contain medullary substance, and medulla is absorbed when no union is to take place. Dark color owing to drying of blood by time. Largest fragment shows that a part of it has been united with another part. Think it must have been cut off above the union of the upper fracture. (The witness called the attention of the jury to fragments of bone. He pointed out a slight but distinct curve in the larger fragment which, with other marks, indicated that it had been broken at the angle of the curve, and afterwards united. The cutting had been made above this point.) If there were pus or matter in arm, as described by German physicians, it was not a proper time to perform operation. Where pus is small in amount, and gives patient no pain, it does no harm. Would probably be absorbed. Atrophy does not indicate that there has been no proper circulation, but results naturally from the injury, and from necessary confinement of the limb. *No evidence of gangrene in the appearance of arm, as described in evidence.* I use two splints, with a small one two inches long, sometimes, when fracture is very low in the arm. This, however,

is not necessary if front splint extends to palm of hand. Never used four splints. In my judgment the bend in ulna is owing to operation in New York. Think radius would have completely united under defendant's treatment. We have no other method of effecting union than that pursued by him.

Cross-examined. The want of power of extension in thumb is, I think, owing to a cutting, or wounding, of extensor muscle, when operation was performed. Can account for it in no other way.

At this stage of the trial, when defendant's counsel were about to recall Dr. Lewis, and were expecting to proceed with the examination of the other medical experts summoned by them, the senior counsel for plaintiff rose and stated to the court that the prosecution of the case would proceed no further. Until the opening of the junior counsel for the defence, he had been under a misapprehension as to the nature of the fracture, having been given to understand, after careful inquiry, that it was both simple and not at all serious in its nature. It now appeared in evidence that the fracture was both compound and comminuted, and one very difficult of treatment. It appeared, also, that the defendant's treatment had been skilful and correct. In justice, therefore, to the defendant, the trial should end here. He would consent that a formal verdict should be at once taken for the defendant, unless his counsel desired to call the remainder of their experts, in order to vindicate still more completely the treatment pursued by their client.

In reply, the senior counsel for the defendant acknowledged becomingly the honorable course taken by plaintiff's counsel. He would have been glad to have placed other medical gentlemen upon the stand, whose approbation of the defendant's mode of practice would have been equally signal with that of the two already called; but in the present position of the case, this was in no way necessary. He asked the court, accordingly, for a verdict.

The court (Hon. PLINY MERRICK) expressed itself highly

gratified by the proceeding of the plaintiff's counsel. The evidence of the plaintiff and of the physicians from New York had, taken alone, made out a case entirely sufficient to justify the counsel in going to trial. The defendant had, however, by his own testimony, clearly acquitted himself of fault; and certainly a junior practitioner of law who should receive from his elder brethren the decided approval which the defendant had met with in this case, would have abundant cause to congratulate himself. The court expressed itself as unable to understand what had induced the plaintiff to institute this suit.

Whereupon a *verdict for defendant* was ordered and taken."

SMOTHERS *v.* HANKS.[1]

"ACTION to recover damages of the defendant, a practising physician, for alleged negligent, ignorant, and unskilful treatment, by him, of the plaintiff's arm, the bones of which had been fractured near the wrist. The cause was tried by a jury, and the evidence introduced tended to show that plaintiff's arm had been broken; that defendant, who held himself out as a surgeon, undertook the cure; that, by reason of defendant's negligence or ignorance, a perfect cure was not effected; that the arm, hand, and fingers were crooked and stiff — perhaps permanently so, perhaps not. The jury found a verdict for plaintiff for $2,000, which, on a motion for a new trial, was reduced to $1,200, and judgment was rendered thereon, from which defendant appeals. The further facts are stated in the opinion.

COLE, J. (After deciding a question of practice.) It is next assigned that the court erred in giving the seventh instruction, which is as follows: 'If the defendant undertook, in the capacity of a surgeon, to treat the fractured arm of the plaintiff, he thereby contracted to possess and employ, in the treatment of the case, such reasonable skill and diligence as are ordinarily exercised in the profession by thor-

[1] 34 Iowa, 286; 11 Am. Rep. 141.

oughly-educated surgeons, having regard to the improvements and advanced state of the profession at the time; and if he has failed in so doing, without any fault or neglect of the plaintiff, he is liable in damages therefor.'

In our opinion this instruction does not give the true legal standard as to the skill and diligence required. The error consists in requiring the measure of skill and diligence ordinarily exercised by *thoroughly educated* surgeons; whereas, the true measure is that ordinarily exercised in the profession by the members thereof as a body. That is, the average of the reasonable skill and diligence ordinarily exercised by the profession as a whole. Not that exercised by the *thoroughly educated;* nor yet that exercised by the *moderately* educated, nor merely of the *well educated*, but the *average* of the thorough, the well, and the moderate — all, in education, skill, diligence, &c. We do not stop to discuss critically the mean- of the term, 'thoroughly educated;' nor is it necessary to prove that it means 'fully, completely, and perfectly educated,' or that it necessarily implies an entire and perfect knowledge. It is enough that it must mean that the standard of the skill and diligence was not the average of the whole body of the profession, or in other words, *ordinary skill*, but was that exercised by some defined or undefined portion of the profession, or in other words *more than* mere *ordinary skill*. Of course, in determining this ordinary skill, 'regard should be had to the improvements and advanced state of the profession at the time' the case was treated, for such regard is necessary in order to correctly ascertain the true standard of ordinary skill. It is also doubtless true that the standard of ordinary skill may vary even in the same state, according to the greater or lesser opportunities afforded by the locality, for observation and practice, from which alone the highest degree of skill can be acquired. As to this last thought, see Shearman & Redfield on Neg. 1st ed. § 436, p. 491. And as to skill and diligence generally as above stated, see Ib. §§ 431–443, and the cases cited in the notes. See also *Howard* v. *Grover*, 28 Me. 97; *Simonds* v.

Henry, 39 Me. 155; *Patten* v. *Wiggin*, 51 Me. 595; *Landon* v. *Humphrey*, 9 Conn. 209; *Reynolds* v. *Graves*, 3 Wis. 416; *Gallaher* v. *Thompson*, Wright's (Ohio) Rep. 466; *Bowman* v. *Woods*, 1 Green (Iowa) Rep. 441.

We are not disposed in any degree, not even in the very least, to let down or lower the true standard of professional skill or diligence, either in medicine, law, or other applied science. But we recognize the fact that this standard must be a practical and attainable one, and not one of mere theory or fancied perfection, the enforcement of which would cause much litigation, and necessarily drive from the profession a large portion of those from whose practice the largest measure of practical good is attained.

The case of *McCandless* v. *McWha*, 22 Penn. 261, is so often cited, and parts of the opinion by WOODWARD, J., so often quoted in text-books and cases that we deem it proper to give it here a somewhat extended analysis. The case arose in Pittsburg, Penn., and was decided by the Supreme Court, 1853. The plaintiff had, in some way, suffered '*an oblique comminuted fracture of the tibia and fibula* of the leg, which fracture was nearly half way from the ankle to the knee.' The defendant, a regular practising physician and surgeon, was called to treat it. The plaintiff claimed that by the want of skill and attention by defendant, the leg had become shorter than the other. The defendant denied the want of skill, and alleged that the shortening came from the improper loosening by plaintiff of the bandages and extensions, and the previous intemperate habits of plaintiff. There was a jury trial in the court below, and the court instructed the jury 'that the defendant was bound *to bring to his aid the skill necessary* for a surgeon to set the leg so as to make it straight, and of equal length with the other when healed, and if he did not, he was accountable in damages, just as a stone-mason or bricklayer would be in building a wall of poor materials, and the wall fell down; or if he built a chimney and it would smoke by reason of a want of skill in its construction, they could not only recover pay for building, but

would be accountable for damages; and, if suits were more frequently brought, we would perhaps have fewer practitioners of medicine and surgery not possessing the requisite professional skill and knowledge than we now have. But it is due to the defendant to state that, with the exception of the matter complained of in this suit, there is nothing in the evidence given to show that he is not respectable in his profession.'

The opinion of a majority of the court was delivered by WOODWARD, J., and, in remarking upon the first instruction above, he says: 'It is impossible to sustain this proposition. It is not true in the abstract, and if it were, it was inapplicable to the circumstances under investigation. The implied contract of a physician or surgeon is not to cure, to restore a fractured limb to its natural perfectness, but to treat the case with diligence and skill. The fracture may be so complicated that no skill vouchsafed to man can restore original straightness and length; or the patient may, by wilful disregard of the surgeon's directions, impair the effect of the best conceived measures. He deals not with insensate matter, like the stone-mason or bricklayer, who choose their materials and adjust them according to mathematical lines, but he has a suffering human being to treat, a nervous system to tranquillize, and a *will* to regulate and control. The evidence before us makes this strong distinction between surgery and masonry, and shows how the judge's inapt illustration was calculated to lead away the jury from the true point of the cause.

The question was not whether the doctor had brought to the case skill enough to make the leg as straight and long as the other, but *whether he had employed such reasonable skill and diligence as are ordinarily exercised in his profession.* For less than this he is responsible in damages; but if he be held to the measure laid down by the court below, the implied contract amounts on his part to a warranty of cure, for which there is no authority in law. . . . . The only remaining error assigned (upon the other instruction) is scarcely

worthy of notice. The action depended so entirely on its own circumstances, that the observation of the court as to the policy of such suits was irrelevant, and we may fairly presume harmless. But, for misdirection on the other point, the judgment is reversed, and a *venire de novo* awarded.'

The precise point decided by the case is, that physicians are not accountable in damages for a failure to make a perfect cure, just as a stone-mason or bricklayer is liable for a failure to make a perfect job. What is above quoted from the opinion is substantially all that legitimately pertains to it. But the learned judge says very much more, and some of it is not entirely consistent with that we have quoted, while some of it is. To illustrate, we quote further: 'We have stated the rule to be reasonable skill and diligence; by which we mean such as thoroughly educated surgeons ordinarily employ. If more than this is expected, it must be expressly stipulated for; but this much every patient has a right to demand in virtue of the implied contract which results from intrusting his case to a person holding himself out to the world as qualified to practise this important profession.' But afterwards he uses this language: 'The law has no allowance for *quackery*. It demands qualification in the profession practised; not extraordinary skill, such as belongs only to a few men of rare genius and endowments, but *that degree which ordinarily characterizes the profession*. And in judging of this degree of skill, in a given case, regard is to be had to the advanced state of the profession at the time.' In our opinion, in this last quoted paragraph, the learned judge reannounced the correct rule of law, the same as he had in the body of the opinion as set out above. But in the preceding quotation he announced a very different rule, to wit: 'Such reasonable skill and diligence as *thoroughly educated* surgeons ordinarily employ.'

The whole case of *McCandless* v. *McWha* is a remarkable one. None of the evidence taken upon the trial in the court below was before the supreme court, except the deposition of one of the witnesses on the part of the defence, and

yet, LEWIS, J., without dissenting from the opinion of WOODWARD, J., filed an extended opinion in which he discusses the merits of the case upon the evidence in the light of a large number of medical treatises, from which he quotes and upon which he comments. But he sums up his discussion with the statement, that the main question is: 'Did the surgeon *exercise ordinary skill and care in his treatment of the patient?* If he did, he is not liable. If he did not, he is.' While BLACK, C. J., delivered the following opinion: 'We all concur in the law of this case. The judge in his charge fell into an error in stating the amount of skill required in the treatment of the case. We reverse for that reason. But when we decide the legal point we are done with it. We are not authority on questions of surgery. Our hands are abundantly full with questions that belong to our own profession, without volunteering opinions on sciences which relate to others. I think it necessary to say this in order to prevent the court below, on a second trial, from supposing that we intend to give them any instructions on matters in which we have no jurisdiction.'

The fact that we now have before us two cases in which the courts below have been led into error by quotations from Judge WOODWARD'S opinion, found in the notes in different text-books, has led us to give the case this extended notice. The point decided and the law actually ruled in the case were right beyond question. But very much of the opinions of WOODWARD and LEWIS, JJ., are outside of the case, and their observations are well calculated to mislead. It may not be out of place to remark, that a majority of this court concur with Chief Justice BLACK, in his observation that 'our hands are abundantly full with questions that belong to our own profession, without volunteering opinions on sciences which relate to others.' For the error in the instruction, as before noticed, the judgment is

Reversed."

BECK, J., dissented.

RITCHEY *v.* WEST.[1]

WALKER, J. "No question can arise on the correctness of the decisions of the court below, in admitting or rejecting evidence in this case, as no exceptions were preserved in the record.

The principle is plain and of uniform application, that when a person assumes the profession of physician and surgeon, he must in its exercise be held to employ a reasonable amount of care and skill; for anything short of that degree of skill in his practice, the law will hold him responsible for any injury which may result from its absence. While he is not required to possess the highest order of qualification to which some men attain, still he must possess and exercise that degree of skill which is ordinarily possessed by members of the profession. And whether the injury results from want of skill or want of its application, he will, in either, be equally liable. This the law implies, whenever a retainer is shown; but when the services are rendered as a gratuity, gross negligence will alone create liability.

This, then, presents the question, whether the evidence in the case establishes a want of ordinary skill or reasonable care, in the treatment of this case. The retainer having been proved, it is not material to inquire whether the case shows gross incompetency or neglect of duty. The concurring evidence of all physicians shows that the splints and bandages were not properly applied. Had they extended below the wrist, the evidence seems to show that they would have confined the wrist to its proper place. It is probable that such a practice would have tended, notwithstanding the fracture, to have held the broken bone more nearly to its place until a union was formed, and thus have prevented to some extent, if not altogether, the deformity and disability to use the hand. The physicians also agree that the splints employed were not of sufficient width, as well

[1] 23 Ill. 385.

as too short, for the treatment of the fracture, even if they had been midway between the wrist and the elbow, as he supposed. And from this evidence it would seem that there must have been a want of ordinary skill or great negligence in the treatment of the case, in not detecting the dislocation of the wrist-joint. The physicians all agree that this portion of the injury could have been easily detected by ordinary care and skill; and the fact that it had been and was still dislocated, was afterwards detected by a person who did not profess surgery or skill in such matters, and had previously only had slight experience in cases of fractured limbs. Then if the evidence of the medical men who were examined as witnesses is to be credited, and it is supported by the fact that the dislocation of the wrist was detected by a person professing to have no skill, there was a want of ordinary care or skill, or both, manifested in the treatment of the case.

The medical witnesses all testify that it is customary and necessary for the surgeon to pay a second visit, for the purpose of ascertaining how the case is progressing, and whether further treatment is required, unless it be dispensed with by the patient. There was no conflict in the evidence that the plaintiff in error was requested to return, which he agreed to do, for the purpose of further examination on the following day, and that he never afterwards returned. Then the fact is established by the evidence, that he not only promised to return, but that it was his duty to have done so, unless notified that such attendance would be dispensed with. Then if this was a part of his professional duty, its omission establishes a want of reasonable care and diligence, which, together with his failing to comply with agreement to return, must render him liable for all injury which has resulted from its non-observance. Had he returned, as his duty and agreement required, in all probability the visit would have resulted in detecting the true situation of the injury, and relief might then have been obtained by the employment of the necessary surgical aid. The court therefore did right in re-

fusing the twelfth instruction asked for by the plaintiff in error, as it assumed that it was not his duty to again visit the defendant in error.

It is likewise urged that the court below erred in refusing to grant a new trial on the affidavit of newly discovered evidence. The facts alleged in the affidavit to have been newly discovered were only cumulative. The question tried by the jury was, whether the wrist was fractured and dislocated at the time when the plaintiff in error was called to treat the injury. The theory of the defence was, that the wrist was not then injured. This evidence, which is said to be newly discovered, if it had been produced, would have only tended to show that the wrist received no injury at the time he was called for medical advice. The evidence of the witnesses of defendant in error was, that the wrist was then injured, and from which it never recovered, and the newly discovered evidence was only rebutting, and was cumulative to his other evidence of that character.

But if this were not true, the affidavit was fatally defective in not stating that the evidence, said to be newly discovered, was true. If he was unable himself to swear to its truth, he should have produced the affidavits of the witnesses themselves, to satisfy the court of such truth. In an application for a new trial because of newly discovered evidence, it is not sufficient for the party to state that he has been informed and believes that the witnesses will testify to the facts, but the truth of such facts must be verified by affidavit. Otherwise but few cases would occur in which a party might not procure some person to state that he would on the trial swear to the necessary facts to procure the new trial, and yet when placed on the stand, wholly fail to testify in accordance with such statement. Such a practice would be liable to great abuse, and should not therefore be adopted.

Upon the whole of this record we are unable to perceive any error for which the judgment of the court below should be reversed, wherefore the same is affirmed."

Scudder *v.* Crossan.[1]

Osborn J. "This was an action brought by the appellee against the appellants for malpractice.

The complaint consists of three paragraphs.

The first alleges that the appellants were practising physicians and surgeons, and as such were called on by Thomas Crossan, a boy of the age of ten years, the child and servant of the appellee, and requested to set his broken arm, which he then had; that they pretended to do so; that they did it unskilfully, negligently, and unprofessionally, by reason whereof his arm became inflamed, and to such an extent mortified that it necessarily had to be amputated.

The second avers that the appellants were physicians and surgeons, practising their profession as partners, and as such undertook and pretended to set the broken arm of Thomas Crossan, the child and servant of the appellee, of the age of ten years, at the request of the boy; that they attempted to set the arm in a skilful manner; that they did it in such a bungling, negligent, and unskilful manner that the arm mortified and had to be amputated.

The third charges that the appellee is the father of Thomas Crossan, an infant under the age of twenty-one years, and as such entitled to his services and society; that the appellants were practising physicians and surgeons, and that as such were called on and requested, for a reasonable compensation, to see, examine, attend, cure, and heal his said son and servant, whose right arm was dislocated; that in pursuance of such request, they agreed and undertook to set and cure the arm; that they did attempt to do so, but that they so negligently, unskilfully, and unprofessionally set, bandaged, and compressed the arm, and so negligently, unfaithfully, and unprofessionally neglected and refused thereafter to attend him in such sickness, and dress, adjust, cure, and heal the broken arm, that amputation became necessary to save his

[1] 43 Ind. 343.

life, and by reason of such carelessness, &c., it was necessarily amputated. A separate demurrer was filed to each of the paragraphs of the complaint and overruled, to which exceptions were taken. An answer of two paragraphs was then filed. The first was the general denial. The second alleged that the injury complained of was caused by the negligence of the plaintiff and his said infant son, and not the unskilfulness and neglect of the appellants. After an unsuccessful motion to strike out the second paragraph of the answer, the appellee filed a reply of general denial.

The cause was tried by a jury, resulting in a verdict of four hundred and fifty dollars. The appellants filed a motion for a new trial which was overruled, and judgment was rendered on the verdict. Exceptions were taken and thirty days' time given to file a bill of exceptions. The bill was not filed within the time allowed. The errors assigned are: 1st. In overruling the several demurrers to the complaint. 2d. In overruling the motion for a new trial.

It is claimed that the complaint is bad, because it fails to allege that the amputation of the arm became necessary without the fault of the appellee or the boy.

We are referred to several cases where it has been held that in a certain class of actions for an injury to the person, caused by the negligence of another, it must appear from the complaint, by express averment, that the plaintiff was without fault, or it must clearly appear, from the facts alleged, that such was the case. *The Toledo, &c. Railway Co.* v. *Bevin*, 26 Ind. 443; *The Evansville, &c. Railroad Co.* v. *Dexter*, 24 Ind. 411; *The Indianapolis, &c. R. R. Co.* v. *Keeley's Adm'r*, 23 Ind. 133.

In this class of suits the plaintiff is required, as a general proposition, to prove that the immediate cause of the injury complained of was the wrongful act of the defendant, to which his own wrongful act did not immediately contribute. Hence, it has been held that the complainant must show by averments that he was not in fault. *The Evansville, &c. R. R. Co.* v. *Hiatt*, 17 Ind. 102.

In this case allegations are, that the appellants were practising physicians and surgeons, and as such undertook to set a broken arm of the infant son of the appellee; that by reason of their unskilfulness, negligence, and want of care in treating the broken arm, it inflamed and mortified, and had to be amputated. We think the averments sufficient to show that the appellee and his injured son were without fault, and that their negligence did not contribute to the result. *The Michigan Southern, &c. R. R. Co.* v. *Lantz*, 29 Ind. 528. It seems to us that, on principle, generally when the complainant, as in this case, shows what the defendant did, that his negligent and wrongful acts caused the injury complained of, it sufficiently appears that the plaintiff is without fault. The allegation, that the injury was caused by the want of professional skill and care of the appellants, is not sustained, if it appear that the negligence of the appellee or his son, whose arm was broken, contributed to it.

'That averment must be proved before the plaintiff is entitled to a verdict.' See *R. R. Co.* v. *Gladmon*, 15 Wall. 401.

'Proof of the commission by the defendant or his servants of the injury of which the plaintiff complains, very generally carries with it *primâ facie* proof of negligence; and it is for the defendant to show that the injury was the result of inevitable accident, or that it was occasioned by the negligence or misconduct of the plaintiff himself.' Addison on Torts, 3d edit. 400. 'Contributory negligence on the part of the plaintiff, who complains that he has been damnified by the negligence of the defendant, is in general an answer to the action, on the ground that a man cannot complain of that which he has himself helped to bring about.' Ib. 18.

The appellants also object to the third paragraph of the complaint, because it does not state with whom the contract to set the broken arm was made, or who employed the appellants.

The allegation was, that the appellants were physicians and surgeons, and as such were called on and requested, for

a reasonable compensation, to set a broken arm of the son of the appellee; that in pursuance of that request, they undertook to set and cure the arm.

'In the construction of a pleading for the purpose of determining its effects, its allegations shall be liberally construed with a view to substantial justice between the parties; but when the allegations of a pleading are so indefinite or uncertain that the precise nature of the charge or defence is not apparent, the court may require the pleading to be made definite and certain by amendment.' Sec. 90, 2 G. & H. 112. If it was uncertain who requested the appellants to render the service, or with whom the contract was made, the defect could be reached by motion to make more certain, and not in this case by demurrer. The nature of the charge was not uncertain.

The appellants have cited no authority in support of the last objection. We think the averment sufficient. 1 Chitty Pl. 384.

The bill of exceptions, not having been filed within the time allowed by the court, is not properly in the record, and consequently no question arising on the motion for a new trial is before us. *Port* v. *Russell*, 36 Ind. 60; *Byers* v. *Hickman*, 36 Ind. 359.

The judgment is affirmed, with costs."

CHAPTER V.

ALLEGED MALPRACTICE IN FRACTURES OF FEMUR.

——— *v.* OATMAN.[1]

(Superior Court of New York.)

HISTORY. "Dr. J. S. Oatman, a reputable physician of New York, attended a carman, aged sixty-four, for a comminuted fracture of the femur near the condyles. The patient being an aged man, and suffering under depraved health at the time, had also an erysipelatous affection of the limb of some months' standing, accompanied with œdema of the injured leg. The inflammation and swelling which supervened immediately after the accident precluded any very accurate diagnosis, and the morbid condition of the patient, and especially of the limb, forbade any considerable pressure, either by bandages or the application of extension. The posture found to give the patient most comfort was that of semi-flexion, and the double-inclined plane was adopted, the apparatus of Palmer and Roe being preferred, upon which the limb was placed, and suitably secured. At the proper time, the usual attention was paid to the careful adjustment of the fragments of the bone, and all the extension and counter-extension which was admissible was duly made. On the thirtieth day the fracture was found firmly united by Dr. Cheesman, who examined it, and the limb, being measured, was found shortened two or two and a half inches.

At this juncture, a young physician in the neighborhood called in to see the patient, without the knowledge of the

[1] Boston Med. and Surg. Jour. vol. xxxiv. p. 449.

attending surgeons, and with the consent of the patient invited Drs. Parker and Wood to visit him, both of whom gave it as their opinion that no surgical treatment was called for, or would be admissible. A son of the patient soon after called upon Dr. Oatman, and significantly intimated a proposition to settle with him for a *quid pro quo*, as the only alternative to a suit for malpractice, the shortening of the limb being now made a ground of complaint, unskilfulness and neglect being alleged. The doctor, not relishing such ingratitude in lieu of his fee for faithful services, was not very patient under it, resenting it as an outrage, and acted accordingly. After six months had passed, the suit was brought, and the testimony of Drs. Mott, Parker, Wood, Reese, Post, Cheesman, was so conclusive and unanimous, that the plaintiff's counsel would have submitted patiently to a nonsuit, but the jury acquitted the defendant, so that his triumph was complete.

ABSTRACT OF EVIDENCE.

On the trial the counsel of the plaintiff, as instructed, attempted to show that the fracture had been badly managed; that the apparatus used was not the best; that there was not sufficient extension and counter-extension used to prevent the shortening of the limb, and that there had been thus a want of attention and skill on the part of the doctor, by reason of which he was left a cripple. But his case was overthrown by his own witnesses, Dr. James R. Wood and Dr. Parker, both of whom examined the limb after some thirty days, and agreed that it had been a bad case of crushed bone, in which the shortening of the limb was unavoidable under any amount of skill; and the latter gave it as his judgment that the patient was exceedingly well off to have recovered from such an accident with both his life and limb, and with no other disaster than a short leg.

But though Dr. Oatman might here have rested his case, and submitted it to the jury on the prosecutor's own testimony, yet his counsel deemed it due to his professional char-

acter to proceed to show, by witnesses well known for their surgical skill and experience, that he was blameless in this case and its results.

Dr. Valentine Mott, a surgeon of forty years' experience, testified that more or less shortening of the limb is uniformly the result after fractured thigh, even in the most favorable circumstances; but that the age of this patient, the bad character of the fracture, the erysipelatous state of the limb, and all the circumstances, were averse to a favorable result, and likely to increase the extent of the shortening.

Dr. David M. Reese is a physician and surgeon of twenty-five years' practice, and testified that from the nature of the injury as described by the witnesses, there could be no doubt that it was an oblique and comminuted fracture, which is always unfavorable and renders a shortening of the limb inevitable. In such a fracture there is always injury of the soft parts, which complicates the case by increasing the risk of inflammation and swelling, and renders it liable to be followed by irritative fever and other constitutional disturbance. The age of the patient was unfavorable; the erysipelas, and especially the dropsical swelling of the limb alleged to be present, would forbid any considerable extent of pressure by bandages, or extension of the limb, without risking the loss of both limb and life. The Dictionary of Dr. Cooper, shown by him, was regarded as good surgical authority by the profession everywhere, and had been edited by himself, all the notes having been republished in London by the author in his last edition.

Dr. A. C. Post, one of the surgeons of the New York Hospital, stated that in such a fracture the injury to the soft parts would interfere with the extension of the limb; and has known two cases in which the attempt to make extension and counter-extension resulted in mortification, and the thighs had to be amputated. The age of the patient and diseased state of the limb increased these dangers. In all such cases, a very considerable shortening of the limb takes place under the best treatment and care, and the removal of

the foot bandage by the patient, as in this case, would increase it. In half an hour after such an accident, he has known the swelling to be so great as to forbid any success in ascertaining definitely the nature of the injury.

Dr. Cheesman, a physician and surgeon of long experience, saw this patient with Dr. Oatman, with great difficulty inspected the thigh, being opposed by both the patient and his friends. He found that it had been an oblique and comminuted fracture, now united. He found the limb shorter than the other, as it uniformly is in such cases. He never knew an exception, and concurs fully in the opinion that the age and morbid state of the limb in this case forbade any greater extension or pressure than was used, and was obstructed in his inquiries by the disturbance and resistance made to his examination.

Similar and corroborative testimony was given by *Dr. Dickinson* and *Mr. McCord*. *Dr. Shepherd* was then examined, who had attended the case throughout, and bore testimony that there was no want of attention or skill on the part of Dr. Oatman, who manifested throughout a becoming interest in the patient's welfare. He proved the morbid state of the limb, the disturbance of the bandage by the patient, and the adverse circumstances which had to be contended with in the management of the case.

Dr. Stoothoff testified that he accompanied Dr. Cheesman and Dr. Oatman on their visit to the patient, and learned from the latter that Dr. Cockroft, junior, had been there, and the son confessed that he had denied it, to conceal this clandestine visit.

In the progress of the trial there was a display of surgical apparatus; thigh-bones both sound and broken, together with a beautiful model of the thigh, taken from the Anatomical Venus, now exhibiting at the American Museum, recently imported from France by P. T. Barnum, Esq., who kindly loaned it for the purpose of enlightening the court, bar, and jury, as to the muscles concerned in fractured thigh."

The foregoing was a case directly attributable to a violation of the Code, which provides that, —

"A physician, in his intercourse with a patient under the care of another practitioner, should observe the strictest caution and reserve. No meddling inquiries should be made; no disingenuous hints given relative to the nature and treatment of his disorder; nor any course of conduct pursued that may directly or indirectly tend to diminish the trust reposed in the physician employed.

The same circumspection and reserve should be observed when, from motives of business or friendship, a physician is prompted to visit an individual who is under the direction of another practitioner. Indeed, such visits should be avoided, except under peculiar circumstances; and when they are made, no particular inquiries should be instituted relative to the nature of the disease, or the remedies employed, but the topics of conversation should be as foreign to the case as circumstances will admit."

Attention is particularly called to Professor Post's testimony in relation to cases occurring where extension and counter-extension was followed by mortification, necessitating amputation.

Reynolds *v.* Graves.[1]

Smith, J. "The declaration in this case contains two counts. The first count, after stating the retainer and employment of the defendant as physician and surgeon (he the said defendant holding himself out and claiming to be such physician and surgeon), 'to set, dress, take care of, manage, and cure a certain broken bone of the thigh of the said plaintiff,' alleges, 'and thereupon it then and there became the duty of the said defendant to set, dress, take care of, and manage the said broken bone as such physician and surgeon, with due and proper care, skill, and diligence; and the said defendant, in consideration thereof, and of certain large sums of money then and there agreed to be paid to him by the

[1] 3 Wis. 416.

said plaintiff as a compensation for his services as such physician and surgeon, then and there undertook and promised to set, dress, take care of, and manage as such physician and surgeon, said broken bone in a proper, prudent, and skilful manner,' &c. The second count sets out the undertaking of the plaintiff, as being '*to set*, *dress*, *manage*, *attend upon*, *and cure* a certain broken bone in a proper and skilful manner,' &c.

After evidence had been submitted on the part of the plaintiff, the counsel for the defendant moved the court to nonsuit the plaintiff, on the ground, —

1st. Because the several counts in the declaration set out a special agreement on the part of the defendant to *cure* the plaintiff's limb, and no such agreement was proved;

2d. Because there was no evidence that the defendant was a physician and surgeon;

3d. Because the contract recited in each count is a special contract, and not such an one as the law implies or creates, and the contract must be proved as recited or alleged; and

4th. The allegation that the defendant held himself out as a physician and surgeon, &c., is a material allegation, and is not proved as recited and alleged.

The circuit judge held, that both counts in the declaration alleged a special agreement on the part of the defendant to 'cure' the plaintiff's broken bone, and as no such special contract was proved, nonsuited the plaintiff.

We are of the opinion that the first count in the declaration does not set out a special contract to *cure* the plaintiff's broken bone. It alleges that the defendant held himself out as a physician and surgeon, and as such he was employed and retained to set, dress, take care of, manage, and cure, and in consideration of the premises and certain large sums of money, &c., as such physician and surgeon, undertook and promised, 'to set, dress, take care of, and manage, as such physician and surgeon, said broken bone in a proper, prudent, and skilful manner.' The gist of the undertaking here is, not to cure the plaintiff, but to use reasonable professional skill and attention to that end.

This count certainly does not set out any special agreement to cure. It is true that by way of inducement it is stated that he was employed and retained for that purpose, as most likely he or any other professional surgeon would have been. That was the end in view. But when the undertaking and promise of the surgeon is stated, the word cure is left out, and the extent of his obligation as averred is to 'set, dress, take care of, and manage as such physician and surgeon, said broken bone in a proper, prudent, and skilful manner.'

To this extent the law would hold him liable in consequence of his holding himself out as a physician and surgeon.

We do not think, therefore, that this count does set out a special contract to cure the plaintiff, but only a contract such as the law implies, — to use due and reasonable skill and diligence to that end. The proof offered and adduced under this count, that the defendant did hold himself out as such physician and surgeon, was sufficient to go to the jury. He was called as such in the first instance. He attended and consulted with Dr. Vilas. He was called doctor during his attendance. He attended as surgeon seven weeks, assuming the whole direction and treatment of the injured limb, and went into consultation thereupon with other physicians and surgeons.

These facts, though not perhaps direct proof of his holding himself out as a physician and surgeon, are sufficient to go to the jury as circumstantial evidence, and the court below erred in withholding them from the jury.

The second count is more analogous to the case cited from 7 Ohio Rep. 463; and did that count stand alone we might be inclined to hold as did the court in that instance. There the declaration stated an absolute *undertaking and promise* on the part of the defendant to cure the plaintiff. Such, certainly, is not the undertaking which the law implies in such cases; but only that reasonable skill, judgment, and diligence shall be bestowed, for the accomplishment of the end

in view. Whenever the contract is laid more comprehensive than that which the law implies, it then becomes special and must be proved as laid. But the undertaking of the defendant as alleged in the first count, is no more nor less than the law implies in similar cases.

The jury might or not have found from the circumstances proved, that the defendant did hold himself out as a physician and surgeon, and as such undertook and promised as alleged in the declaration. But the proof tended that way, and was proper for the jury. For these reasons we think the court below erred in nonsuiting the plaintiff, and the case must go back for a new trial.

Judgment reversed and new trial awarded."

CHAPTER VI.

ALLEGED MALPRACTICE IN FRACTURES NEAR KNEE AND IN LEG.

GLADWELL *v.* STEGGALL.[1]

(Court of Common Pleas Eng., Michaelmas Term, 1838.)

"THE plaintiff, an infant of ten years old, by her *prochein ami*, sued the defendant in case; and the declaration stated, that whereas, before the committing of the grievances the plaintiff, at the special instance and request of the defendant, had employed the defendant to bestow the care, diligence, and attendance of him, the defendant, in the profession and business of a surgeon and apothecary, in and about the endeavoring to cure her, the said plaintiff, of a certain complaint and disorder under which she then labored, and the defendant then accepted and entered upon such employment as such surgeon, it then became and was the duty of the defendant as such surgeon to use due and proper care and diligence in and about the endeavoring to cure the plaintiff of the said complaint and disorder, under which the plaintiff then labored, as aforesaid. Breach, that the defendant conducted himself so unskilfully that the plaintiff was greatly injured in health and constitution, and underwent great suffering, &c.

Pleas, first, not guilty; second, that the plaintiff did not employ the defendant, nor did the defendant accept or enter upon such employment in manner and form, &c.; upon both which pleas issue was joined.

[1] 5 Bingham (N. C.), 733.

At the trial before VAUGHAN, J., it appeared that the plaintiff, while working in the fields with her father, complained of a pain in the knee, and went home; her mother sent for defendant, who, though a clergyman, practised also as a medical man; he attended the plaintiff, and his attendance was followed with disastrous consequences to her. He had previously attended other members of the family, and his bill in this instance was made out to the plaintiff's father, upon which it was objected on the defendant's behalf, that the allegation that the plaintiff had employed him was not made out, and that he was entitled to a verdict on the second plea. VAUGHAN, J., reserved leave for the defendant to move the court on the point, with leave for the plaintiff to move to amend, if the objection should be thought tenable.

A verdict having been found for the plaintiff, with £10 damages, —

Kelly obtained a rule *nisi* to enter a verdict for the defendant on the second plea, on the objection taken at the trial.

B. Andrews & Gunning showed cause. This is not an action *ex contractu*, and there is no statement in the declaration that the defendant was retained, or that he was to be paid by the plaintiff; the allegation of employment, therefore, is sufficiently proved by the fact that the plaintiff submitted herself to the treatment of the defendant. The substance of the issue was, that the defendant, being employed to attend, injured the plaintiff: it was immaterial by whom he was employed to attend. In *Pippin* v. *Sheppard*, 11 Price, 400, it was held not a ground of demurrer to a declaration in an action on the case by a man and his wife against a surgeon, for an injury to the wife, by reason of the defendant's improper and unskilful treatment, that it was not stated in the averment that the defendant was retained and employed as a surgeon, for reward to be to him paid, *by whom* he was so retained, or *by whom* he was to be paid; it was held sufficient to aver that the defendant *was retained* as a surgeon and *entered upon the cure*.

Kelly & Byles, in support of the rule. A contract is stated on the record, which is made the foundation of the defendant's duty; that contract was with the plaintiff's father, and is a material part of the case. In *Pippin* v. *Sheppard* there was an averment, not found here, that the defendant was a surgeon, and there was no averment of any contract. The declaration contained a bare statement of an employment to cure, and of a misfeasance by the defendant; here, the duty is alleged to arise out of a contract. [TINDAL, C. J. It is not necessary to allege the duty; the law infers it.] In *Rex* v. *Everett*, 8 B. & C. 114 (15 Eng. Com. Law Rep. 158), which was an information for soliciting a custom-house officer to neglect his duty, Lord TENDERDEN says: 'The fact from which the duty arose ought to have been stated in the count.' The fact which raises the duty is a material fact; and in this case a direct issue has been taken on it.

As to the proposed amendment, it can only be allowed upon an averment not material to the action, and where the opposite party has not been misled. There is no instance of an amendment to deprive a party of the benefit of a verdict to which he may be entitled under a distinct issue raised by the pleadings.

TINDAL, C. J. This question comes before us on the second issue, which is a traverse of an allegation in the declaration. The declaration is not framed as in an action on a contract, but alleges a breach of duty arising out of the employment of the defendant by the plaintiff. I can conceive that if this had been an action *ex contractu*, — that is, if the declaration had stated that, in consideration of being paid by the plaintiff, the defendant undertook to cure her, — there might have been some difficulty in finding a verdict for the plaintiff on the evidence adduced at the trial. But this is an action *ex delicto*. It is clear that none but the plaintiff could sue for damages for personal injury done to her, and the form of the traverse does not vary the extent of the defendant's duty; his duty would be the same, whether he was called in

by the father or by the child. I think the allegation in the declaration here is single, and that, upon this traverse, there *was* evidence that the defendant, being sent for by the mother of the child, the child allowed him to operate; that is evidence that she employed him, and that he accepted the employment.

VAUGHAN, J. The issue involves the employment, by whom employed, and the breach; by whom the defendant was employed, I think, is immaterial. It seems to me, however, that upon this issue the employment was substantially by the plaintiff.

BOSANQUET, J. The argument of the defendant proceeds on the supposition that this case must be governed by the same rules as if the action were brought on a contract. This action, however, is neither brought on a contract nor founded on one. It is brought by a person who has sustained a bodily injury, and by the only person who could sue for it. The allegation that she employed the defendant is traversed in the plea; but it is not necessary to consider whether the allegation is material or could be the subject of amendment, because there was sufficient evidence of an employment by the plaintiff, when it was proved that the defendant was called in, and that the plaintiff assented to his attendance.

This, too, is an action on the case, and if more than one employed the defendant, and the person injured sues, that is sufficient to sustain the action; it would be impossible, here, to say that the plaintiff, as well as her father, did not employ the defendant.

ERSKINE, J. I am of opinion the verdict has been properly found for the plaintiff on the second issue. It was not necessary to state in the declaration by whom the defendant was employed; and when the second plea traverses the allegation that the defendant was employed by the plaintiff, the substance of the issue is that the defendant was employed *to cure* the plaintiff; not that he was employed *by* the plaintiff. If it were otherwise, I think the court might amend by striking out of the declaration and plea by whom

the defendant was employed; that would alter nothing material to the merits of the action.

I am of opinion, however, that no amendment is necessary, and that this rule must be *Discharged.*"

BRAUNBERGER *v.* CLEIS.[1]

(Dist. C. Alleghany Co. Pa., December Term, 1864.)

VERDICT, in above suit, for plaintiff for $2,900. New trial awarded. Reasons not given.

Second trial, March term 1865.

HISTORY. "*A. F. Braunberger*, aged about thirty-six years, a strong, healthy man, of active, industrious, and temperate habits, enjoying uninterrupted good health, whilst attending an engine on June 1, 1863, in Pittsburg, was severely injured in his left leg by coming in contact with the machine. A piston-rod, about two inches in diameter, struck his limb below the knee-joint, the posterior part of the same being supported by some part of the machinery, lacerating skin and muscles, and comminuting the bones extensively; there being but one inch space between the piston and that part of the machinery against which the limb rested. Immediately after the accident (about nine o'clock A. M.), Braunberger crawled from the engine to the door of the building, a distance of twenty feet, where he sat down upon the steps and called to a fellow-workman to come and carry him home. Two persons assisted him to walk, and then carried him into a neighboring house. Dr. George Cleis was immediately brought in, and upon examination of the wound, pronounced it 'only a flesh wound,' and assured the injured man and his friends that 'he would soon be well and able to work.' After the bleeding had stopped, the wound was sewed up, and linen cloths and cold water applied.

The man was then carried home, and chamomile tea ordered as a drink. On the second and up to the seventh day,

[1] Medical and Surgical Rep. vol. xii. p. 569; Am. Law. Reg. 1864–65, p. 587.

Braunberger was rational, cheerful, and able to eat, and talked to all who visited him, though complaining all the while of his leg, expressing his firm belief that it was broken. Dr. Cleis visited him at least once a day, and repeatedly declared that it was a flesh wound, that the bone was not broken, and that the man would soon be well. Nothing appears to have been done for the limb beyond the application of cloths saturated with cold water.

ABSTRACT OF EVIDENCE.

John Rehrer, who nursed Braunberger, says that he was sensible and lively up to the seventh day of June. On that day his condition became a great deal worse, and Dr. C. ordered him to apply warm water to the limb. He states that the body of the man became cold, and his mind wandered when he dozed or slept; that high fever set in with great thirst, and that his abdomen began to swell, the whole limb having become swollen some days before with profuse and offensive discharges from the wound. He told Dr. C. that they wanted another physician called in, and that they must have one. On the following day, Dr. C. brought in the afternoon Dr. Kern, who upon examining the wound cut the stitches and removed one or two pieces of bone, pronouncing it a case of compound comminuted fracture, which absolutely required amputation. Dr. C. at first disputed with Dr. Kern as to the character of the injury.

Dr. A. G. Walter was the only surgeon examined on behalf of the plaintiff. He did not appear in obedience to the subpœna, and was brought into court by an attachment. He testified as follows: —

I was called to see Braunberger on the 9th of June, about noon; found him dangerously ill with a limb hopelessly injured nine days before. The injury was caused by machinery. There was a large gangrenous wound of nearly the size of my hand, below the left knee, discharging very offensive matter in large quantity. The whole limb from foot to groin was enormously swollen — the result of phleg-

monous erysipelatous inflammation. The limb laid upon its outside with knee bent, the tibia itself was curved below the knee from fracture. The muscles below the knee were lacerated, broken up, and ground by force of machinery; those of the thigh were completely dissected by matter, which had formed between them, up to the groin, from which it could be easily pressed downward and outward. The knee-joint itself was full of matter and perfectly disorganized. The head of the tibia and its shaft to below the middle was broken longitudinally and transversely into a great many pieces; the former being completely ground, admitting the point of all the fingers into its cavity. The fracture extended into the knee-joint in three directions. Such an amount of local injury could not exist without extensive and dangerous suffering of the system. I found the patient delirious, with high irritative fever, flushed face, hurried respiration, dry tongue, a small, feeble, and rapid pulse, tumultuous action of the carotids and heart, and profuse clammy perspiration, — symptoms which plainly indicated the violent and last struggle of the system of a powerful man, against one of the severest injuries which could have happened to him. His strength being exhausted, it was evident that speedy dissolution would follow, if no relief could be afforded by removing the limb. The limb should have been amputated at once, or soon after the injury; this is the rule of practice, sanctioned by every intelligent civil and military surgeon of all nations, in injuries of this character, where the soft parts and bony structures are so extensively lacerated and crushed, the fracture extending into the joint, as to preclude all hope of reparation. The bones were not simply broken, they were absolutely ground; the skin and muscles were not merely lacerated, but bruised, beaten, and deprived of all vitality by the force of machinery; the joint itself was opened, and one of its articulatory surfaces broken into several pieces. The limb should have been amputated at once, when the injury was fresh, and before the system at large had become involved, not only sympathizing with the injured

parts, but violently resisting the inroads of a destructive process going forward in the limb, which process, though local at first, becomes destructive to the system at large. Such being the condition of the patient when I saw him on the 9th of June, I felt sure that there was no chance then for amputation under these circumstances. If I had amputated at that time, more than likely the man would have died in my hands. But he could not live with the limb; this had to be sacrificed if life could be preserved. Yet how to preserve the latter? This was the question, which, though of doubtful probability, still did not justify inaction on the part of the surgeon. Considering that the train of constitutional symptoms were indicative of the highest general irritation, the result of excessive suppuration, with its consequent debilitating and enervating influences, and that well marked symptoms of pyæmia, or poisoning of the blood, with matter taken into the system (which would have precluded all hope of recovery), were still absent, it was clearly my duty to try to allay the fever, and to sustain the vital power by tonics, stimulants, anodynes, and nutrients, so as to place the system in a condition to bear up under the local destruction, while locally, about the injured limb, all sources of irritation were to be removed as much as possible, by placing it in an easy supported condition, and giving free exit to matter, before risking amputation as a final resort. With this view I placed the limb upon a cushioned splint, had the remaining stitches removed, made a free long incision through the gangrenous wounds, into the knee-joint, extending upward into the thigh, allowing the matter thus secreted to escape, and removed all loose and detached pieces of bone, of which there were a great number. Frequent ablutions of the large wound, with aromatic and antiseptic lotions and poultices, constituted the local treatment. This local and general treatment faithfully persevered in, had the effect of calming the nervous and vascular excitement; the man became again rational, frequency of pulse decreased, appetite returned, the tongue became moist, tympanitic distension of abdomen, and profuse perspiration disappeared,

and the wound, before pale and dirty, became fresher looking, discharging matter in less quantity, and of a less offensive character. Continuing this medication up to the sixteenth day, the patient gradually improving, I felt that the moment had arrived when removal of the limb might be risked, — the patient himself and his friends earnestly soliciting its removal. Further delay was evidently out of the question, as no more improvement could be expected; on the contrary, it was justly apprehended that rapid sinking again might set in, or that pyæmia might be superadded with no more chance of amputation. The patient and friends, being fully apprised of the great risk of amputation under these circumstances, and of its more than probable fatal result, still insisted on the last trial. The limb was accordingly removed at the upper third of the femur. The patient died the next day.

Sewing up the wound and inclosing the foreign matter (broken pieces of bone, coagulated blood, and putrid pus), and keeping it thus stitched up for nine days, was very bad treatment. I knew Braunberger's excellent and powerful constitution well, having attended him for a compound comminuted fracture of an arm some years before, and believe his life could have been saved by primary amputation. The limb should have been amputated within a few hours, or a day, as soon as the system had rallied from the shock. Knowing his vigor and powers of endurance, I feel confident that there was no shock justifying the delay of amputation. Reaction means rallying of the system from the shock. When an injury befalls a person the nervous system receives the first impression, and this shows itself by various symptoms of greater or less intensity, in proportion to the amount and severity of the injury, and the constitutional powers of the injured person. A strong man will bear an injury much better than one of weak vital forces and feeble constitution. We call this 'the shock.' It is analogous to fainting, or a paralytic condition of the system or part. Under the influence of shock we find the surface of the body cold, partic-

ularly the extremities; the skin is pale, lifeless, bloodless; pulse small, feeble, and sometimes hardly perceptible in beat. The patient is generally very sick at the stomach, and vomits or rejects everything offered him; he is restless, he becomes insensible; his condition is approaching stupor. Bleeding generally stops, or there is less bleeding in that state than otherwise, unless large vessels are ruptured; the wound becomes dry and pale. Diarrhœa sometimes sets in, and death soon follows, say within twenty-four hours, unless a change takes place. The effects of the shock, however, are modified according to the organ principally injured. Heat of surface of the body returning, moderate volume of pulse at the wrist reappearing, with calmness of mind and body, and desire for drink and food, &c., indicate rallying, the first degree of reaction. I would amputate in the rallying state of the system, and not wait for full reaction, this being the state of dangerous excitement, if not of actual inflammation.

The prosecution here rested, when the following testimony was presented by the defendant: —

Dr. Wm. Kern testified that he saw the patient on June 8, at three o'clock P. M.; found the limb inflamed and very much swollen; made an incision, limb full of dark humor. Limb above the knee healthy, the line of demarcation was distinct. Gave patient stimulants — the case needed it. Told Dr. C. the case was dangerous, and I thought we ought to take the leg off. The next day Drs. *Cleis*, *Brooks*, and myself met for consultation. We came to the conclusion that the only alternative was to take the limb off. Cleis, Brooks, and myself agreed to amputate the limb then on that day. Think that the patient, on the 9th, while Drs. B. and C. and myself were there, was in a condition to have the limb amputated. Some of Braunberger's friends, however, expressed an earnest desire to have Dr. A. G. Walter consulted, whereupon Drs. Cleis, Brooks, and myself considered ourselves dismissed, retired from the case.

Cross-examination. Cannot tell whether the case was treated properly by Dr. Cleis, or whether or not the sewing up of such a wound was proper treatment.

On the first trial Dr. Kern gave the following testimony: Found leg in a putrid state; effluvia were so offensive that I had to put a handkerchief over my nose. On meeting Dr. Brooks next morning in the case, Dr. B. at first thought that there was no fracture, but came to the conclusion that I was right after examining the wound with the finger. We both insisted on immediate amputation as the only chance to save the patient, who was very weak, and the wound suppurating profusely. Would not amputate when the man was bleeding very much, would first arrest the hemorrhage. A fracture is called compound when the bones protrude through the muscles, as in this case. There is a possibility that this fracture could have been overlooked and mistaken for something else. Do not recollect whether the wound had been stitched or not. Patient would have survived the amputation; do not know that it would have saved his life. Amputation should have taken place on the 9th; it was wrong to postpone it to the 16th of June.

Dr. J. Brooks testified that he saw Braunberger with Drs. Cleis and Kern. The man's knee and leg were broken. Limb much swollen. Pulse feeble; swelling from feebleness and inertia, — a kind of dropsical inflammation. Amputation (on the 9th) would have availed nothing. I did not agree to amputate. I said to the doctors (Cleis and Kern) that amputation would avail nothing. In my judgment the man never had rallied, although I never saw the man but once, and that was on the ninth day after the injury. I could tell by looking at him that his system had never rallied. I am sure there was not reaction in that man from the beginning. There was no line of demarcation. Amputation would have done him no good; it would have only hastened his death.

On the first trial he testified as follows: Braunberger was in a dead state, the limb was sloughing, or in a state of mortification. The leg and thigh were a great deal swollen, and there was a dropsical effusion. The part was dead. The conclusion we came to (on the 9th) was, that the man

would die. We did not conclude that amputation should take place. I thought then, and yet, that no good could have resulted from amputation.

A witness for the defence testified that Braunberger complained (after some days) of pain in his back.

Dr. Geo. McCook testified that amputation should never be performed till reaction had taken place. That he never saw Braunberger, but he was of the opinion that reaction had never taken place, because of the alleged pain in the back; and that amputation of the limb could not have been safely performed at any time. Pain in the back is one of the worst indications of shock, and I never knew a man recover who complained of that. The pain in the back goes to show the effect of the shock — extreme shock. I would despair of restoring a man in Braunberger's condition on the 9th of June, as found and described by Dr. Walter. It would be my duty to assist nature in effecting a reaction. It was bad surgery to sew up the wound.

On the first trial he testified as follows: The effluvia mentioned by Dr. Kern as existing June 8, indicated that mortification had commenced. I would have amputated the next day after the accident. If amputation had taken place the next day (June 2), it is almost certain that the man would have lived. I would not have amputated the limb on the 16th. If I had amputated at all, I would have done so at once on the 9th.

The theory of the defence was that reaction never occurred, or if it did it was only on the 9th of June, from the stimulants administered by Dr. Kern on the 8th, and that the calling in of Dr. Walter prevented the proposed amputation on the 9th.

His Honor Judge WILLIAMS charged the jury as follows: —

This is an action brought by Catherine Braunberger against Dr. George Cleis, to recover in her own right and in right of her three minor children damages for the death of her husband, Albert Frederick Braunberger, occasioned, as

she alleges, by the negligence and unskilfulness of the defendant, who was employed as physician and surgeon to treat him for an injury which he had received in his left leg.

It appears from the evidence that the plaintiff's husband, who was about thirty-two years of age, in good health, and of a sound and vigorous constitution, and was employed in Kirchner's tannery, having charge of the engine therein while so employed, on the morning of the 1st of June, 1863, received an injury in some way not explained, by which the bones of his left leg below the knee were crushed and broken in pieces, the fractures of the main bone extending into the knee-joint. Soon after the accident he was carried into the house of Kirchner, and the defendant was sent for to attend him. When he came he found the wound bleeding, and having first partly stopped the bleeding, he examined the wound with a probe, and said that the leg was not broken, but that it was a mere flesh wound of which he would be well in a few days.

He then stitched up the wound, which was three or four inches in length, applied some liniment to it, and put upon it a wet cloth or bandage, giving directions that it should be kept wet by sponging from time to time with cold water. He then left for the purpose of visiting a patient at some distance, having given orders that if the wound should commence bleeding, to call another physician without waiting for his return. Some time after he left, the wound commenced to bleed, and, without sending for another physician, the bleeding was checked, though not entirely stopped, by the application of cotton saturated with ink. The defendant returned in an hour or two, and found the wound with the cotton on it, still bleeding a little. He gave orders to have the patient removed to his own home, and said he would attend him there. He was accordingly removed to his own house, where he was attended by the defendant, who visited him twice daily, doing nothing for the wound itself, except to put wet cloths or loose bandages on it, and directing that they

should be kept wet by being sponged with cold water, until the seventh day after the accident, when he ordered the cloth to be wet with warm instead of cold water. On that day he was told by the witness who nursed the deceased, if the jury believe the evidence, that if he did not call another physician to consult with him, the family would, because the deceased was getting weaker, — his body was growing cold, and there was a cold and clammy sweat on his face. According to the testimony of the witness, the deceased, whose appetite was at first very good, had by this time little or no appetite for food of any kind, and had become very weak, and complained on several occasions of pain in his back. The next day (the eighth) the defendant brought Dr. Kern with him. Dr. Kern opened the wound and found that suppuration had taken place, and the wound filled with gangrenous matter so offensive to the smell that the attendant could not stay in the room. Having removed the gangrenous and offensive matter, he examined the wound, and found that the leg was broken, and informed the defendant of the fact, and that there was no possibility of saving the patient's life except by amputation. He then prescribed some stimulating medicine in order to put the patient into a fit condition for the operation. The next day, the ninth, the defendant and Dr. Kern called in Dr. Brooks to advise with, and assist them in performing the operation. Upon examining the condition of the patient, they, or the majority of them (for, in respect to this fact, there is a direct conflict in the testimony of the consulting physicians), advised immediate amputation as the only possible chance of saving the life of the patient. Dr. Kern is still of the opinion that he was in a fit condition, and that if his leg had been taken off, there was a reasonable prospect of his recovery; while Dr. Brooks is of the opinion that he was not in a fit condition to undergo the operation, and that amputation would have been worse than useless; that it would have hastened his dissolution. The result of the consultation was announced to the deceased and his friends, and they requested that if his leg was to be taken off, that Dr.

Walter should be called in before it was done, and they accordingly sent for him. The three physicians then said, that as Dr. Walter had been sent for, they would have nothing more to do with the case, — that they considered themselves dismissed, and accordingly they left. When Dr. Walter came, he found the patient, as he has testified, in a condition utterly unfit to undergo amputation. It is not necessary to repeat the description which he gave of his condition, the jury will recollect it. He says it would have been madness to amputate his leg while he was in that condition, that he would have probably died in his hands. He commenced a course of treatment to bring about, if possible, such a condition of the system as would enable him to undergo the operation, and on the 16th of June, when the most favorable moment that he could expect had arrived for the performance of the operation, with the hope, and the only hope of saving his life that he had, he amputated his leg. But he was not able to survive the shock, and died the next day. These are the main facts in the history of this case.

The plaintiff alleges that her husband's death was occasioned by the negligence and unskilfulness of the defendant, and that he is responsible for the damages which she and her children have sustained in consequence of his death.

The principles of law applicable to this case are simple and easily understood. When one is employed as a physician or surgeon, the law implies an undertaking on his part, that he will use a reasonable degree of care and skill in the treatment of his patient, or in the performance of the professional duty which he undertakes ; and in judging of this degree of skill, regard is to be had to the advanced state of the profession at the time. This is the implied duty of the medical or surgical practitioner, and he is responsible for any injury which may be occasioned by his want of reasonable care and skill in the discharge of the particular duty which he undertakes, and for which he may have been retained. In this respect the law exacts no more of medical practitioners or surgeons than it does of those engaged in any other

profession or calling, where care and skill are requisite for the successful accomplishment of the duties incident and appropriate to such profession or calling, whatever it may be.

The law does not imply an undertaking on the part of medical or surgical practitioners, any more than it does on the part of those engaged in other professions or callings, that they will use the highest degree of care and skill attainable or known in the profession. If it did, but few would be competent to practise the medical, surgical, or any other profession. For but few, comparatively, possess the requisite natural endowments, the industry, energy, and perseverance, the opportunities for study and improvement, and the experience necessary and indispensable for the attainment of the highest degree of professional skill.

The law, therefore, very properly requires no more of the medical and surgical practitioner than the use of a reasonable degree of care and skill in the discharge of the duty or office he may be called upon to perform; but rigorously exacts this degree of care and skill, and it implies an undertaking on his part to use such reasonable care and skill in the discharge of his professional duty; it renders him responsible for any injury which may result from the want thereof. Reasonable care and skill is a phrase not of absolute but of relative import or signification. What may or may not be reasonable care and skill depends very much upon the nature of the duty to be performed or the thing to be done, and the attendant circumstances. The more difficult the duty or operation, the greater is the degree of care and skill requisite for its successful accomplishment. And in the performance of very difficult and dangerous operations in surgery, the surgical practitioner is required to possess and employ a higher degree of care and skill than would be necessary for the performance of operations less difficult or dangerous. But he is only required to employ a reasonable degree of care and skill in these operations, and in the previous and subsequent treatment of the case, — that is to say, such a degree of care and skill as men of ordinary prudence,

learning, and skill in this department or profession usually possess and employ; and if he does not he is responsible for the injury occasioned by his negligence or unskilfulness in this respect.

By the common law, no action could be maintained by the widow or other relation of a deceased person to recover damages for any injury resulting in death, when occasioned by unlawful violence or negligence. If the injury thus occasioned did not result in death, the sufferer might recover damages therefor; but if death was the result, the common law gave no actions for the recovery of damages to the relatives or personal representatives of the deceased. This defect in the law was remedied by the Legislature of this State, by an act passed the 15th of April, 1851, the 19th section of which is in these words: —

'Whenever death shall be occasioned by unlawful violence or negligence, and no suit for damages be brought by the party injured during his or her life, the widow of any such deceased, or, if there be no widow, the personal representatives, may maintain an action for, and recover for the death thus occasioned.'

By a supplement to this act, approved the 26th April, 1855, it is declared, that 'the persons entitled to recover damages for any injury causing death shall be husband, widow, children, or parents of deceased, and no other relative; and the sum recovered shall go to them in the proportion they would take his or her personal estate in the case of intestacy, and that without liability to creditors.'

By 'unlawful violence,' as used in the act of 1851, is meant the improper, and, therefore, unlawful use or employment of physical force, however applied. It is the abuse of force, and implies a positive act. 'Negligence' is the omission of something that ought to be done. It is negative in its character. It is not doing what ought to be done. It is omitting to do something which reason, prudence, and skill would suggest as proper and necessary to be done, under the circumstances of the case. And whenever death happens

from either of these causes, namely, 'unlawful violence or negligence,' action may be maintained under the statute, and damages recovered therefor.

It is contended by defendant's counsel that mere malpractice by a physician or surgeon is not such unlawful violence or negligence as is contemplated by the act, and that for this reason there can be no recovery in this action. But the act, both in its letter and spirit, is in my opinion sufficiently comprehensive to embrace the case of death resulting from malpractice, whenever occasioned by unlawful violence or negligence. In all cases in which by the common law an action could be maintained and damages recovered for an injury, not resulting in death, occasioned by malpractice, an action on the statute may now be maintained, if death resulted therefrom, when such malpractice consists in 'unlawful violence or negligence.' It cannot be doubted that malpractice on the part of a physician or surgeon may consist in unlawful violence, that is to say, the improper and unlawful use of physical force, as well as in negligence or the omission to use the appropriate and indispensable means for the recovery of the patient or the preservation of his life. And in either case, whether by unlawful violence or negligence, if death be the result, he is responsible therefor. But the fact that the physician or surgeon may have been guilty of malpractice, however gross in its character, will not render him responsible in an action on the statute, at the suit of the widow or other relatives, unless the death of the deceased was occasioned by such malpractice. If the deceased might have survived and recovered from the injury occasioned by the unskilfulness or negligence of the physician or surgeon, under proper treatment and by the use of the appropriate and necessary means, after the discharge of such physician or surgeon for incompetency or unskilfulness, or if the death is fairly attributable to, or actually resulted from, some other causes, there can be no recovery in an action on this statute. There may be no doubt or question as to the malpractice of the physician or surgeon, but unless the death

of the deceased was the result thereof, his widow and children are not entitled to maintain an action and recover damages therefor. But if the death was occasioned by malpractice in either of the modes suggested, namely, by the improper application of physical force, or, in the language of the statute, by 'unlawful violence,' or by the omission of the appropriate means, that is, by 'negligence,' the statute gives a remedy, and damages may be recovered therefor by the widow and children.

It will be the duty of the jury to apply these principles to the evidence in the case. There is no evidence that the defendant was guilty of any 'unlawful violence' in the treatment of the deceased, which caused his death. Whether his death was occasioned by the negligence and unskilfulness of the defendant, is a question of fact for the determination of the jury. The responsibility of determining this question is upon them, and not upon the court.

The plaintiff's counsel contend that the death of plaintiff's husband was caused by the negligence and unskilfulness of the defendant, in not ascertaining the nature and extent of the injury, and making use of the appropriate means for the treatment of the same, and for the preservation of his life.

They allege that the defendant's negligence and unskilfulness are shown by the fact that he mistook the injured condition of his leg — crushed, fractured, and broken to pieces, as it was — for a mere flesh wound; and that this radical error, in regard to the nature of the wound, and its consequent treatment as a mere flesh wound, was the grossest malpractice on the part of the defendant, and the cause of the death of plaintiff's husband. The defendant's counsel do not deny that their client was mistaken in regard to the nature and extent of the injury, and in the treatment appropriate thereto; but they contend that this mistake as to the nature of the injury and its appropriate treatment, was not the cause of his death. If the jury believe the evidence, there can be no doubt that the defendant failed to discover the nature and extent of the injury, and that he might and ought

to have ascertained this if he had employed ordinary and reasonable care and skill in examination of the wound, and that his treatment of the injury as a mere flesh wound was not the proper and appropriate treatment of a leg broken and ground to pieces, as this leg was, with the fractures extending into the knee-joint. While quackery and empiricism ought not to receive any countenance from the court and jury in any profession, and least of all in the medical and surgical, where the consequences are serious, and often fatal, yet the court and jury, in dealing with cases of manifest malpractice, ought to be careful not to impute or attribute to such malpractice consequences which do not legitimately and properly result from it. Did, then, the mistake which the defendant made in regard to the nature and extent of the injury, and his consequent mistreatment of the case, cause the death of the plaintiff's husband? This is a question of fact for the determination of the jury, under all the evidence in the cause. It is often, perhaps always, a difficult thing to ascertain and determine the consequences necessarily and actually resulting from malpractice. It is an inquiry requiring more knowledge, scientific skill, and experience in such matters than men ordinarily possess; and therefore the law allows experts, that is, persons learned and skilled in such matters and pursuits, to be called in to aid the court and jury in the investigation; and great weight is to be attached to their opinions.

Where they agree in opinion upon a given hypothesis or state of facts, their opinion should be regarded as conclusive evidence thereon; but it is always the duty of the jury to determine whether the given state of facts, or the supposed hypothesis, exists or is established by the evidence.

While the physicians and surgeons, who have been examined in this case, differ in some respects, they all agree in the following particulars: —

1st. That there was no possible chance of saving the life of the plaintiff's husband, except in amputating the broken leg, because the fracture extended into the knee-joint. They

all agree that there was no other possible way of saving his life.

2d. They all agree that amputation is not to be performed unless the system of the patient is in a fit condition; that it would be unpardonable to amputate when the system is in a state of shock; that where the result of an injury is a shock of the whole nervous and vital system that it would be death to amputate in such a condition.

3d. That in case of shock, amputation should be performed as soon as the system recovered from the shock; in other words, as soon as the system has rallied, and reaction has taken place.

4th. That in case of shock, if the system does not rally, or if reaction does not begin to take place, it is the duty of the surgeon to make use of proper means to bring on a reaction, by giving stimulating remedies, and endeavoring to produce heat in the system by artificial means.

These are well established principles of surgery in regard to which there is no dispute. The intelligent and skilful surgeon should always act in conformity with these principles in determining whether amputation should or should not be performed; and in determining the probable results or consequences to the patient, if the operation is or is not performed. Bearing in mind the cardinal principles of the science, the jury will determine: —

1st. Whether the injury to the plaintiff's husband resulted in that condition, or state of the system, called shock, and whether the nervous and vital system was so shocked as to render amputation of his leg not only dangerous but probably fatal? Or whether the shock of the system was so slight that the operation might have been performed with a reasonable prospect of saving his life?

2d. If the shock was so great that death would have been the result of amputation while the system was in that condition, was there such a rallying or reaction of the system that amputation might have been safely performed with a reasonable prospect of saving the patient's life?

3d. If reaction did not take place, might it in all human probability have been produced by the use of the appropriate means or remedies?

4h. Was the plaintiff's husband in a fit condition for the amputation of his leg at the time of the consultation between the defendant and Drs. Kern and Brooks; and if they had then been permitted to perform the operation, is it probable that the life of the plaintiff's husband would have been saved?

If the jury find that the deceased was in a fit condition to have his leg amputated with safety to his life soon after the injury; that his system was not in a state of shock, or, if it was, that it rallied and recovered therefrom, so that amputation might have been safely performed while the defendant had charge of the case, then it was his duty to amputate; and if amputation could not have been safely performed at any time after he ceased to have charge of the case, and if the death of the deceased was occasioned by the neglect of the defendant to perform the operation at the proper time, he is responsible for the consequences of his negligence and unskilfulness, and this action may be maintained for the recovery of such damages as the widow and children have sustained thereby.

But if the deceased was so prostrated by the injury he received — if he was in such a state of shock — that amputation could not be safely performed; if his system did not rally, or might not have rallied so that his leg could be amputated with safety to his life; if he would probably have died whether his leg was amputated or not, then there can be no recovery against the defendant in this action, although he may have grossly mistaken the nature and extent of the injury and treatment appropriate thereto. Nor can there be any recovery against the defendant, if amputation might have been safely performed at any time after the defendant ceased to attend the deceased, and another surgeon had been called to take charge of the case. The defendant is not responsible for any neglect or omission of duty after his con-

nection with the case had ceased. If the life of the deceased might have been saved if his leg had been amputated on the day that Dr. Walter was called to attend him, the defendant is not responsible in damages for his death. The jury will determine what are the facts from all the evidence in the case.

If the jury find for the plaintiff, they will assess such damages as will compensate the widow and children for the pecuniary loss they have sustained by the death of the deceased. The jury are not required to estimate the value of his life. If they were, dollars and cents would be a poor standard with which to measure the life of a human being. They are only required to give damages for his death. The widow and children of the deceased are not entitled to recover anything by way of solace for their wounded feelings; they are only entitled to recover damages for the pecuniary loss they have sustained in consequence of his death.

The damages ought not to be extravagant or unreasonable. If the defendant had been actuated by malice, the jury might give vindictive damages. But the defendant was not actuated by malice. If he caused the death of the deceased it was not intentional, but the result of ignorance and unskilfulness, and therefore the jury should be merciful while they do justice.

The points submitted by defendant's counsel are affirmed.

The jury found a verdict for plaintiff for $3,250."

Closson *v.* Loomis.[1]

History. "Mrs. Closson, age fifty-seven, fell down cellar stairs. Sent for Dr. Campbell, who had for forty years been her medical attendant. He was unable to go, but sent word he would see her the next morning. She being in great pain sent for Dr. Loomis, of Putney, Vt., who came. Dr. Campbell called next morning, but learning that Dr. Loomis had taken charge of her, left her and saw her no more.

[1] Boston Med. and Surg. Jour. vol. liv. p. 129.

Dr. Loomis found swelling of one wrist, and serious contusion of one leg just below knee, with so great swelling of the leg that it would have been impossible to ascertain with certainty the existence of fracture of tibia, had he considered it proper to make a thorough examination. But finding neither unnatural mobility nor any apparent displacement, he waited for subsidence of the inflammation before handling the part, in the mean time supporting the leg and foot and making applications to reduce inflammation. The wrist gave no evidence of fracture or dislocation, and when the swelling about it had subsided, Dr. L. gave it no further attention.

On the eleventh day, the patient was removed to Westminster by her friends, three miles further (six miles in all) from Dr. Loomis's house, without the knowledge or consent of the physician. She rode in a wagon, sitting on the seat, with her foot resting on its side on bedclothing piled up before her. Dr. Loomis did not see her again. For seventeen days she remained without medical attendance, and then called in Dr. Kittredge, of Walpole, having in the mean time removed again to Walpole.

Dr. Kittredge made a deposition which was read to the court. He deposes that he found deformity of the radius, from a fracture within an inch and a half of its lower extremity, with dislocation of the ulna; and deformity of the tibia from a transverse fracture three inches below its head, and displacement of the lower fragment toward the fibula, the upper fragment remaining in place. He deposes that union of the tibia was then not complete, and that the limb could not support her weight. He deposes that he applied pasteboard splints and bandages. He did not attempt to reduce the fracture.

How long the splints were continued, we have no evidence. The limb has been tightly rolled to the present time, and the patient has never attempted to use it, but has constantly gone on crutches.

This is the case, as presented by witnesses at the trial.

Between one and two years after the injury was received, Mrs. Closson removed from Walpole, N. H., to Woodstock, Windsor Co.,[1] Vt. After remaining there long enough to acquire a legal residence, she entered actions for malpractice against Drs. Campbell and Loomis in the Windsor County Court. She then returned to Walpole to reside. When the case of Dr. Campbell was to come to trial, she withdrew the suit against him in Woodstock, and commenced one in Keene, N. H.

Dr. Campbell was tried in Keene in October, 1855, and acquitted. The suit against Dr. Loomis was tried at Woodstock, Vt., in the December term of 1855, before Judge Underwood. Messrs. Tracy of Woodstock, and Marcy of Royalton, were counsel for the plaintiff; Messrs. Washburn and Marsh, of Woodstock, for the defendant. The jury brought in a verdict for the defendant.

The grounds of accusation were, maltreatment of the case and unjustifiable desertion of the patient. The counsel for the plaintiff attempted to show that the displacement of the tibia could not have taken place during her removal; as it would have been attended with so much pain that it must have been evident to the patient 'that something extraordinary had taken place.' Whereas she testified that there was no particular increase of pain at that time, as she was already suffering nearly all she could bear. Her counsel therefore contended that the displacement must have existed from the first, and ought to have been discovered by the physician. And in their argument, these gentlemen ridiculed the idea that a blow severe enough to produce a transverse fracture of the tibia would not displace the fragments, while such displacement might take place gradually, and even without producing any peculiar sensations, in the course of a ride of three miles, eleven days later; a singular instance of ignorance and weakness of mind that substitutes partisan presumptions for the evidence of experiment and experience.

[1] Putney, where she was hurt, is in Windham County, Vt.

ABSTRACT OF EVIDENCE. — FOR DEFENDANT.

Gustavus H. Loomis: Am defendant. Have practised medicine and surgery for nine years. First called to visit patient on the night of the 25th of October, 1852, between the hours of 10 and 11 o'clock. I saw her at John H. Stoddard's house in Putney, Vt., between the hours of 11 and 12 o'clock. Found her lying on a sofa. Her friends said she had fallen down cellar. She appeared in a very nervous and excited state. I made a very slight examination of the leg when she was lying on the sofa. Assisted in carrying her to the bed. I think I examined the arm before moving her. After she was placed on the bed, I passed my hand over the limb; it was very much swollen, — more than I ever saw in such a case before in so short a time. I examined her by passing my hand over the bone and by looking at the limb. She was quite fleshy. I deemed the best course to pursue was to place the limb in an easy position, and try to reduce the inflammation and swelling. I placed a pillow under the knee, and supported the limb so as to make it as easy as possible. I treated it as though it had been a fracture. I thought it might be a fracture. Gave an anodyne, and applied a cooling lotion. I rotated the wrist, bent the fingers, flexed the wrist and extended it. She could adduct and abduct it. She complained of some pain, but I could not detect any displacement. I treated the wrist with a flannel roller and applied cooling lotions. Used flannel, as this would retain moisture longer. I left her comfortable. I gave her no opinion, — I mean no direct one. I said to one of the attendants, if the small bone of the leg was broken high up, it would take care of itself, and would not need a very extensive examination. Should think I was there three or four hours. Accident occurred on Monday, and this was early Tuesday morning. I saw her again near the middle of the day. Was as comfortable as could be expected. Treatment continued. Leg more swollen; more discoloration. Wrist much the same. Too much swelling

to make a correct diagnosis. Did not see her on Wednesday, because my own health was poor, and I thought she would get along as well. I saw her again on Thursday. There were blisters on the leg; more inflammation; skin shining. Blisters were from the size of a fourpence-half-penny to that of a pin's head. The foot was somewhat swelled. Inflammation was more extensive. I directed a yeast poultice to be applied to the part. I did not advise this before. I put this on, as there were symptoms denoting a tendency to mortification. There was no poultice on when I came. I did not examine the limb to ascertain whether there was fracture, as it would have been necessary to press the limb hard enough to have felt the edges of the bones, and move the limb so as to produce crepitus; and this, in the already excited state of the parts, might have produced gangrene. I felt confident that if there was friction the bones were in apposition. I applied liniment to the wrist. I saw her again on Friday. She was better. Her whole condition better. Her leg had not increased in size. Blisters were no worse. Did not make an examination, for the same reasons that I did not yesterday. Examined the wrist; could detect no fracture. I again saw her on Saturday; the swelling had gone down a very little on the leg; not any on the knee. Discontinued the yeast poultice. The blisters had disappeared, and the general appearance was better. I made no examination, because I did not think it safe. The limb did not show any departure from the proper direction and natural position. There was no apparent deformity. What force was used in my examinations of the fracture had not shown that there was any motion in the bones. She said on Saturday that I need not trouble myself any more about her wrist, as that was well enough. She had all the motions free in it, and after this day I did not examine it. I next saw her on Monday. The leg was improving; the swelling had gone down a very little; but I did not make any examination, for the same reason as before. I again saw her on Thursday. I did not make any examination. Her leg was

in the same position as at the previous visits; the inflammation was less. There was something said about her being moved. I declined giving my consent, on this occasion, and at all times. I told them I would be there on Friday or Saturday and make a thorough examination, and determine about her moving; and when she was moved, I wanted to be there myself, and see to it, and fix it up. They said 'Yes, she must be bandaged, of course.' I said to them that that would not do; I must see to it myself. I went there again on Saturday, and was then informed that she had been moved. I had not been informed that she was going to be moved. I had never given my consent to her being moved at any time. I did not know where she was going. I was told, after she was gone, that she was at Mr. Floyd's, a distance of six miles from my house. I never saw her afterwards professionally. I was never asked to attend her after she was moved, nor did I suppose that I was expected to do so. I supposed she was in the hands of her own physician. I never put any bandages or splints to her leg. The use of splints is to keep broken bones in apposition. In this case I think bandaging might produce mortification. Bones begin to unite in from nine to twelve days, as a general thing; but this would be affected by the health and age of the patient, and other circumstances. In the plaintiff's case, with her health, I should expect in a common simple fracture that union would commence in from twelve to twenty days — say fourteen or sixteen days. In such a case as this, I think the inflammation should somewhat subside before reducing the fracture. The size of the broken ends at the point of fracture would tend to keep the bones in place; or it would not be so liable to displacement as if they were smaller. Where there are two bones in a part, as in the fore-arm and leg, the unbroken bone operates as a splint. There was no displacement of the fibula. If bones are in place and the direction of the limb is right, no further examination is necessary. It would make a great difference from

what part of the wrist-joint Dr. Kittredge measured.[1] The nearer to the wrist-joint the fracture was in the radius, the more difficult would it be to diagnosticate, and the less would be the danger of displacement.[2] If a patient was moved that had such a fracture as the plaintiff, without preparation, I should expect displacement. By preparation I mean splints. If the reasons for moving were very urgent, I would have her limb splinted, and have her moved as easily as possible. If the patient must be moved, in a case of simple fracture, where there is no great inflammation, the sooner she is moved the better. After reparation had begun, it ought not to be allowed. If bones are in apposition, and they can be kept there without, it is as well not to use splints as to use them. A simple fracture is where there is no communication with the external air through the soft parts.

Cross-examination. I have testified on this case once before. I cannot say that I then stated anything about gangrene. I think I then said there was not much deformity or swelling at the wrist. I made no thorough examination, because I deemed it to be imprudent, on account of the inflammation ; and if there was a fracture, it might produce displacement or extreme irritation and inflammation. She might or might not have any great amount of pain in moving. This might depend on the amount of nervous sensibility. I thought it would not be safe to move the limb. Moving of the limb would be apt to produce irritation under any circumstances. I did not know where the house was where Mr. Floyd lived. I did not know Mr. Floyd. They were strangers to me entirely. I had practised in that neighborhood. I had, I suppose, attended a patient in Mr. Floyd's house. How long before, I do not know. I universally refused to give my consent to her being removed. I called on Mrs. Closson once at Walpole. I did not call professionally, but because I heard a rumor about there being

[1] Referring to Dr. K.'s deposition, that there was fracture of the radius an inch or an inch and a half from the joint.

[2] The testimony was in reference to *transverse* fracture.

broken bones. I found them fractured; the tibia of the leg, and the radius of the arm. There was a decided deformity.

Re-direct. Went to see the plaintiff, and stayed there some twenty minutes. There was not much swelling. I could see there was a crook where it ought to be straight. When I last saw her there was no such crook. If there had been such a crook, I should have seen it when she was at Putney. If I were going to move her, I should prefer a litter.

John Campbell: Reside in Putney. Am a practising physician and surgeon. Was called on the night of October 25, 1852, to see Mrs. Nancy Closson, the plaintiff in this suit. Saw her the next morning. I went into the room. I did not move the limb. Her leg was swollen and a good deal discolored. It was in a good position and well supported. I was about to run my hand up on the leg and she objected. I judged that the leg was not out of place. It had none of the appearances that it had at Walpole some ten or twelve weeks afterwards. I think I should have noticed it, if it had been out of place as at Walpole. There appeared to be a good deal of nervous sensibility. I should not have thought it good practice to have made a thorough examination. I have known Mrs. Closson for twenty years. She is of a nervous temperament and a scrofulous habit. I have attended her during several severe fits of sickness; one of epidemic erysipelas. She at one time had a functional heart difficulty. Union between broken bones takes place in from ten to twenty or twenty-five days. In this case I don't think nature would have done much in less than fifteen days. The time would increase with age, and be modified by constitution and habit. Splints are for keeping bones in apposition. They are a necessary evil. Where there is great inflammation, splints and bandages may produce gangrene. We should do without them when we can, that is, when the bones will remain in place without them. I have had to take off splints and bandages after I have put them on. From the breadth of surface of the broken bone, the fracture would not be easily displaced. The fibula in this

case would serve as an excellent splint. I would delay examination in such extensive inflammation until the inflammation had in a great measure subsided. The position was a good one; the limb was flexed just enough to relax the muscles. If the patient was put into a wagon, placed on the seat, and moved in this way, I should expect displacement of the bones. The nearer a fracture is to the end of a bone, the less likely it is to be displaced, and the more difficult will it be to make a correct diagnosis. A fracture of the radius within an inch or an inch and a half of the wrist-joint, may not affect the motions of the hand as much as a severe sprain. In case of transverse fracture of the radius, the ulna would not necessarily be dislocated, and if it was dislocated there must be displacement of the radius.

Cross-examined. I made no particular examination. In an ordinary case, the practice is to reduce the limb as soon as the surgeon is called. It depends on the constitution of the patient, the condition of the limb, &c. I usually prefer doing it at once, when it can be done. When the fracture is oblique, there is more danger from spasms of muscles. If such a patient was to be moved, splints should be put on the limb. If the bone was displaced during the journey, the pain caused by it would be discernible.

Re-direct. I did not examine the bone very critically at Walpole. The visit was a short one. It is my impression that Dr. Loomis invited me there. There is very little danger of displacement in a fracture like this, when the patient is asleep. If I rotated the hand, flexed and extended it, and felt the bones with my fingers, I should think it was a sufficient examination.

Wm. Henry Thayer: Am a practising physician and surgeon. Have been in practice twelve years. Am professor of pathology and the practice of medicine in the college in this place. I teach anatomy during the winter term. When a surgeon is called in a case of injury, it is his first duty to make as thorough an examination as the circumstances of the case will allow; and ascertain, if possible, whether

there is a fracture, and, if so, its nature and extent. The ordinary symptoms of fracture are displacement and unnatural mobility of the bone. There may be fracture without displacement. There would be more difficulty in determining whether there was or was not fracture, in such a case. The liability to displacement would be affected in this case by there being another bone in immediate relation with the fractured one. The two bones of the leg are bound together by strong ligaments, which make them like one bone. There is not much tendency to displacement, where the tibia is fractured near its upper extremity, from the greater size of the broken ends at that point. If the fracture was occasioned by a direct blow, I should expect swelling of the soft parts to follow at once. In a case like the plaintiff's, I should expect considerable swelling, and that it would commence immediately after the injury; and if the surgeon was called in three or four hours after the injury, it might be impossible to determine with accuracy whether there was fracture or not. In such a case as the plaintiff's, the surgeon ought not to handle the soft parts; he should disturb them as little as possible, — that is, in a case like this, where there is no material displacement. There being no apparent displacement, and much swelling in the surrounding tissues, the surgeon's duty is to place the limb in as easy position as possible for the patient, and make such applications as will tend to alleviate pain and reduce the inflammation. The surgeon may make an examination when the inflammation has in a great degree subsided; and he should not do so before that time. No union of the bones can take place while there is great swelling and inflammation [1] in the parts, and these should be first reduced. The object of splints is to keep bones in apposition. In regard to the proper position for the leg, there might be a difference of opinion. I think the position was a good one. It is good practice in some cases to dispense with splints. It would

[1] *Inflammation* is not understood by lawyers to include swelling; hence the phraseology of testimony here and elsewhere.

be bad practice to use splints where there was great swelling and inflammation around the fracture. Splints cannot be used without bandages. It would not have been proper to apply splints in such a case as was testified to by the defendant. To have used them in the condition in which the plaintiff then was, would have endangered the safety of the limb. The use of splints would not have been indicated until the inflammation had in a great measure subsided. No displacement could well take place in a fracture such as this is shown to have been, while the limb is at rest. There is no force in the limb itself to draw the fragments from their proper relations, with the exception of one muscle (the popliteus) ; and that could only affect the upper fragment, as it is inserted into the upper fifth of the tibia. The upper fragment would not be likely to be displaced, from the fact that it is held in position by strong muscles. The other muscles[1] run parallel with the shaft of the bone, and consequently could not affect its fragments in a manner to produce displacement. I would account for the displacement in this case, by the removal of the plaintiff without the limb being sufficiently supported. The plaintiff might have been removed carefully after putting on splints and bandages, without producing displacement. In a case such as the plaintiff's, I should expect such removal as was testified to might produce displacement. I should not expect any dislocation of the fibula from the removal. I heard the defendant's testimony in regard to his treatment of the leg. I think his treatment was good, as he has stated the facts. A fracture of the radius near the wrist-joint is not so easily discovered as one farther up. Such an one is sometimes very difficult to detect. On being called to see a wrist that had received an injury, I should first examine it with the eye to see if the bones were in place. If I could not satisfy myself by this, I should pass my hands along the edges of the bones, and observe the motions of the joints. If there was no apparent

[1] *Meaning,* all but the popliteus.

deformity, and I could detect no evidence of a fracture by passing my hands over the bones, and the motions of the wrist were free, I should keep the part quiet, and make such applications as would tend to reduce the inflammation. The highest medical authority says that a fracture of the radius occurring as near the wrist-joint as it appears to have been in this case, is sometimes very difficult to detect, and will sometimes exist without displacement of the fragments. If the ulna had been dislocated, it would have been most probably thrown either backward or forward, producing so great a deformity either on the back or in the palm of the hand as could not be overlooked by a surgeon. Subsequent displacement of the fractured ends of the radius would not of itself dislocate the ulna. It would require some new injury to occasion it. The surgeon having made up his mind that there was no fracture, the inflammation having subsided, and no complaint being made by the patient, I do not think there was any necessity of his making another examination. Spasmodic contraction of the muscles will occur from the effects of displaced bone on the surrounding tissues. They may occur at any time, according to the circumstances of the case. I do not consider it probable that the tibia could have been displaced by the spasmodic action of the muscles. Displacement is very unlikely to occur when the patient is quiet in bed. She is not likely to move her limb when it is in the state described. She might if she were delirious or in a state approaching to delirium.

Cross-examined. Displacement of the tibia, as it exists in the plaintiff's case, would not be likely to occasion spasmodic muscular contractions. Such displacement will not necessarily produce pain. Pain does usually attend the displacement of the fragments occurring at the time of fracture. It is possible for displacement of the fragments to take place at a subsequent period, without pain — particularly if gradual. I presume pain always occurs when a bone is broken. I think severe pain will be felt when a broken bone is projected into the flesh. A displacement might have taken

place during the removal of the plaintiff, without her experiencing any additional pain. I think she would know that something extraordinary had taken place, from the motion of her limb in its inflamed state, whether displacement of the broken bone occurred or not. The immediate result of such a displacement would very likely be to increase the inflammation of the limb, and affect her comfort. This effect would probably continue several days. There is sometimes great difficulty in detecting a fracture of the radius near the wrist-joint. I have never seen a transverse fracture of the radius within an inch and half of its lower extremity, and without displacement of the fragments. There is no medical writer, except one, as far as I know, who mentions such a case. But we have his authority, which is great, for the occurrence of such fractures and the great difficulty [1] of their detection. In a case like this, it is the surgeon's duty to watch the limb, and make an examination when the proper time comes. Nothing the patient may say in regard to the injured part can excuse him from making an examination, if he thinks it necessary to do so. Dislocation of the fibula is less likely to occur than fracture of it; any force applied to it would sooner break than dislocate it.

Direct examination resumed. Had a dislocation of the upper extremity of the fibula existed at the time Dr. Loomis saw her, it might not have been discoverable on account of the swelling. It is not the duty of a physician to continue in attendance on a patient who removes her place of residence, unless he is requested to do so. A displacement like that now existing in the tibia did not necessarily occur all at once, by any sudden action. It is more likely to have been gradual, and probably took place in that manner during her removal.

Re-cross-examined. If a physician is in attendance on a patient, and is informed that she is to be removed, it is his duty to follow her, or give notice that he will not do so.

[1] The *difficulty* depends upon the absence of displacement of the fragments, and the *rarity* refers to the same point.

Ptolemy Edson: Am a practitioner of medicine and surgery. Have been in practice forty-five years. The duty of the surgeon when called to see a patient where there may or may not be fracture, is to make an examination at once. If not called until after swelling and inflammation have taken place, he must make a slight examination only. If there has been injury of the soft parts, more swelling takes place. If there is much swelling, he should put the limb in as quiet a condition as possible and apply cooling lotions. Fracture without displacement is very common in transverse fractures, and especially in parts where there is another bone. If the fracture is near a joint, it is very difficult to detect; and if there be much swelling, it may not be determined without using such force as would be an injury to the patient. The examination should not be made until the swelling and inflammation had subsided in a great measure; for the reason that union will not take place while the parts are in such a highly inflamed state. Splints are used to keep bones in place. When there is another bone in the part, it furnishes one of the best splints we can have. Splints may often be dispensed with. When splints are used, bandages must also be applied. I think Dr. Loomis treated the limb in this case right. I think a patient, in such a case as this, ought not to be moved for the first eleven days. If it was absolutely necessary, she should be moved on a litter. If moved in the manner shown by the testimony, I should fear displacement. I never saw a case in practice, of fracture of the radius within an inch and a half of the wrist-joint, without dislocation of the ulna. We have very few accounts of such in medical books. It is very difficult to discover fractures of the radius at this point. The usual way to detect it is to observe the motions of the wrist and hand, and this is not always sure. In a case like this, as testified by the defendant, if I could discover no displacement, I should place the arm in as quiet a position as possible and apply cooling lotions. After I had examined it once, I should not probably examine it a second time, if I heard no complaint.

Cross-examined. When there is a dislocation of one bone and a fracture of another, I should reduce the dislocation and apply splints. I use splints more than is usually done now. If there is dislocation, the eye will detect it at once; as the joint will be thrown out of shape. Should think if the displacement of the tibia took place all at once, the patient would think something extraordinary had taken place. It might be displaced gradually. If displacement took place some time after the fracture, it might occasion only slight swelling. The pain would subside soon after the displacement — in an hour or two.

Edwin Hazen called: I am a physician and surgeon. I have practised medicine thirteen years. I have seen the plaintiff, and examined her wrist and leg. I found indications of a transverse fracture at the wrist. There is no apparent dislocation of the ulna, and no evidence of any dislocation ever having taken place there. The ulna is a little more prominent than usual, from the hand being carried more to the radial side of the arm. I found evidence of a transverse fracture of the tibia about three inches below the knee-joint. I measured both limbs. There is no evidence now that there has ever been any dislocation of the fibula. I think it would have broken rather than its ligaments have given away. I heard Dr. Loomis testify. I think his treatment of this case was correct.

Cross-examined. I think the examination would not be so satisfactory as one made six or eight weeks after the accident. If the fibula had been dislocated, there would have been more deformity than there is.

Direct examination resumed. If the fibula was dislocated, and not reduced within a few weeks from the time of injury, it would present the same appearance now. She had her leg bandaged from the foot to the knee, with a book cover under the bandage. She said it was to reduce the pain. I think the bandages have had a bad effect on the limb. The muscles have grown smaller — are atrophied.

FOR THE PLAINTIFF.

Thomas C. Powers called: I was called about ten days ago to go and see the plaintiff. I examined both her leg and arm. I discovered that there had been a fracture of the upper part of the tibia, and there was a lateral displacement of about one quarter of an inch. The upper end of the lower fragment had been carried toward the fibula—it may be from a quarter to a half an inch. It has united in the situation I have described. I have practised medicine and surgery for twenty-eight or twenty-nine years. I was not able to make up my mind that there was any dislocation of the fibula. I examined the wrist, and found the radius had been broken about an inch and a half from the joint, and the upper fragment carried toward the ulna. There is a deformity there now. At the first examination I made, I thought there had been no dislocation of the ulna; I have since examined it and I think there has been a dislocation of the ulna. I don't see how this deformity could exist unless there had been such a dislocation. I think there is nothing unusual in a fracture at this point. If there was not much swelling, there would not be much difficulty in detecting a fracture at this point. When no bone is broken, but only a bruise, I should suppose a removal could be made without difficulty. If the leg was fractured, a removal would tend to produce inflammation and swelling.

Cross-examination. I think a sudden displacement would produce more immediate pain than if it was gradual. The broken ends project in toward the ulna. I think the deformity is too much for a simple fracture. It is difficult to tell whether there was any dislocation of the ulna or not. A fracture might exist in the radius, and the ulna be dislocated, and still the patient might be able to give a rotary motion to the hand. The mere fact of pain in rotating the hand, would not of itself indicate whether it was a fracture or a sprain. There might be difficulty in determining where the fracture now is; and a difference of opinion as to where it is.

Dr. Thayer, in his remarks upon the case, says (and as he develops in the course of them the views of the eminent surgical authorities of that time, I present his remarks in full):

"The two main points at issue in this case, were the correctness of the surgical treatment by Dr. Loomis, and the propriety of his discontinuing his attendance after the patient's removal. In regard to the second point, no opinion was given by the medical witnesses — the questions put to them by the plaintiff's counsel having reference to circumstances which did not exist, namely, what would be a surgeon's duty in relation to continued attendance on his patient who had removed her place of residence, having previously informed him of her intention to do so? It had been testified by Dr. Loomis himself, and deposed by the nurse, that when Dr. Loomis became acquainted with the general desire of the patient to be removed as soon as she was able, he had uniformly discouraged it, and had said, that, should it become unavoidable, he must come and apply splints and rollers to the limb. He had never been called upon to do so, and when, therefore, on one occasion he came and found the patient gone, he was fully justified in considering the contract between them to have been annulled by the act of the patient herself. If bound to follow her to the next town, why not further? Where is to be the limit? And this was the view taken by the counsel for the defence.

The other point — the correctness of the treatment — included the propriety of omitting such an examination of the leg as would determine absolutely the existence of fracture of the tibia, the propriety of omitting the application of splints to the limb, and the justification of the surgeon in not discovering the fracture of the radius.

On these three points, the testimony of the physicians who were called upon the stand had reference to the case in hand. As to the time for learning exactly the state of a fractured bone and reducing it, every surgeon knows that to put the fragments in place is the readiest mode of reducing inflammation. But in transverse fracture of one bone of the leg,

where there appeared to be no displacement, and it was hardly possible, from the anatomical arrangement of the parts, that any should exist, there is no reason for handling a limb — already very much swollen by serious contusion — as roughly as would be necessary to discover such a fracture as existed in this case. It would be the worst practice to do so.

John Bell is very strong on this point. The Principles of Surgery, by that acute surgeon, contains a paragraph which I shall quote entire, as it refers to several points at issue in this case. 'In fractures of the lower extremities there is no occasion for bandages, for the patient lying in bed, the part is in no danger of being moved. Unless you could invent a machine which would enable a patient to walk or stand upon his leg, you need none. In all fractures of the leg, then, simple as well as compound, you merely lay the limb out upon its pillow or splint; nothing but convulsions, delirium, or mania, can endanger the fracture or require bandaging. In laying a fractured leg, where but one bone is broken, you need be at no pains about the posture; if the leg lie easy, and the patient complain of no pain, all must be right; but when both bones are broken, you must be at pains to trace the sharp line of the tibia with your finger — for that regulates the posture of the leg. This you cannot do at first, because the general swelling hides the bone, but you have no fear of altering the posture of the limb, and you know that the subsiding of the swelling marks the proper period for ascertaining the posture of the limb.' [1]

So Sir Charles Bell says, 'When swelling has arisen, an examination of the position of the bones will be found impracticable.' I shall be pardoned, I trust, for referring to several good authorities on this point and the question of the use of splints, although it is well known that there is no difference in the practice of surgeons in this respect.

John Hunter says, 'Splints should not be applied till after inflammation has subsided.' Nathan Smith warns his reader against the application of splints in such a way as to produce

[1] Principles of Surgery, by John Bell, New York edition, 1810, p. 128.

injury by their pressure. Dr. Hayward, in his volume of Surgical Reports, page 82, speaks of pressure as liable to cause ulceration or sloughing. Mr. Ferguson says that in certain cases (where there is great injury of the soft parts) it is necessary to do without splints. Mr. Cooper, in his Surgical Dictionary (p. 378), says, 'When the fragments are not out of their relative position, the surgeon must strictly refrain from all avoidable disturbance of the limb.' In South's translation of Chelius (vol. i. p. 556), we have the following remarks: 'No fracture (collar-bone and oblique fracture excepted) should ever be set, that is, put in splints and bandaged, till after three or more days, or, more properly speaking, till the swelling has ceased, and nearly or completely subsided. . . . . Therefore, all that should be done at first is to lay the limb upon a pillow, in a position which gives the patient the greatest ease and soothes the irritability of the muscles.'

We have thus discussed the first and second points — upon which the daily practice of all good surgeons is sustained by the highest authorities among surgical writers.[1]

The third point relates to the fracture of the radius. A *transverse* fracture of the radius within an inch and a half of the lower extremity, *without displacement of the fragments*, and without dislocation of the ulna, is a very rare occurrence. So much so, that I am not aware of any author except Chelius who makes any mention of it. But we have his authority for saying that it does occur, and that it is extremely difficult of recognition.

Had the fracture been oblique, as it usually is, there would in most instances have been displacement of the fragments at once, and the nature of the accident could not have escaped the observation of the surgeon; but the fragments were probably so intimately engaged at their surfaces, that, in

[1] If the object be attained, namely, the keeping the fragments in apposition and at rest, it matters not how it be done. Where splints are inadmissible, the double inclined plane in fracture of the femur, or pillows and cushions in a case like this, are the proper thing. The case was treated as if it were a fracture, thus giving the patient the benefit of the doubt.

the absence of any physiological force to draw them asunder, they gave no crepitus nor indication of mobility. They became gradually displaced after the limb had passed from the observation of the surgeon and the patient began to use her hand. It was then that the nurse first noticed that the wrist was 'growing out.'

I have referred to Chelius. The following remarks are taken from South's translation of Chelius, vol. i. p. 611, American ed.: 'Fracture of the radius is mostly consequent to a fall on the hand, when the arm is outstretched; in which case it usually happens in the middle of the bone. More rarely it is produced by direct violence.

The diagnosis is not difficult; the seat of the fracture is felt, and, during pronation and supination, crepitation also. The fractured ends turn towards the cubit. *Only when the fracture is near the lower end of the bone is the diagnosis difficult*, and its confounding with sprain so much the more possible, as *frequently at the first there is scarcely any or no distortion of the hand, nor is its motion interfered with.*' Whereas, when displacement has occurred, he says, 'pronation and supination, bending and violent straightening of the hand, are very painful and restricted,' &c., &c. It is inevitable, from analogy with experience of other fractures, to believe, that if in addition to the fracture being near the lower extremity of the radius, it is also *transverse*, the possibility of its occurring without displacement becomes a strong probability.

This much for the case as it was presented at the trial. The jury found no difficulty in bringing in a verdict for the defendant, and he was declared not guilty. It now becomes us to inquire if there was anything in the condition of the woman — irrespective of the connection of Dr. Loomis with the case — which justified an action for malpractice. Had she sustained any injury? Was she in any degree lamed or deprived of the full and free use of her leg? These are extremely important questions, and had they been put to the medical witnesses on the stand, not one of

them would have answered them in the affirmative. The tibia is broken transversely, and one fragment is displaced laterally to the extent of more than a quarter and less than half an inch, leaving the surfaces in apposition over an extent of three fourths of an inch at the least. Union takes place. And every surgeon knows that the tibia will be as strong as ever — that, after eighteen months, if another accident were to produce fracture of the bone, it would be as likely, and probably more likely, to take place anywhere else than there. Why, then, is she still a cripple? Why does she come into court on crutches? Because of the subsequent treatment of the case. The physician at Walpole, N. H., who saw her twenty-eight days after the injury, applied splint and rollers. The bandage has been continued to the present time — whether by his advice or not I am not informed, and it did not appear in evidence. But that the steady bandaging and the entire disuse of the limb are the exclusive and sufficient causes of its present useless condition, there can be no doubt. Dr. Hazen testified to the manner in which a roller was worn upon her leg; he was the only witness, except Dr. Powers, who had an opportunity of examining her.

The confinement of six or eight weeks which every patient with fracture of the leg necessarily undergoes, leaves him with atrophied muscles and stiff joints, and his first steps are always taken with pain and difficulty. How, then, can it be otherwise when three years have elapsed instead of two months? It does not require disease to produce the same results; false anchylosis and muscular atrophy will follow simple disuse. Had the woman remained under the care of Dr. Loomis, and begun to use her leg at the proper period, there is no reason to doubt that she would have regained its use in a short time. And had she recovered with just the deformity that now exists, a jury would hardly have considered the deviation from the normal line of the bone to have been sufficient ground for damages. But even this deformity would hardly have occurred had the patient been under medical care.

It is very evident that the physician at Walpole did not consider the deformity a very serious matter, for he did not propose to reduce it, although he saw it when the amount of union must have been very slight, — being only seventeen days after the displacement probably took place, and only twenty-eight days after the injury. Had he thought it an important matter, he would, of course, have broken up the callus and restored the fragment to its place. There can be no doubt that this gentleman knows what is good practice in such a case, for his own deposition — which was read in court — stated that he had been many years in practice, and that *his leading branch is surgery!*

The mal-position of the tibia would never have made the plaintiff a cripple in any degree. Neither she nor her friends would have been aware that her leg had been broken, from any sensations she would experience or lameness she would exhibit.

It remains only to speak of the fracture of the radius. The best surgical authority (quoted above) has justified Dr. Loomis in failing to recognize it in the very unusual form in which it occurred. Had the patient remained under his care after the gradual displacement which produced the present deformity, no doubt he would have recognized it. Our present inquiry, however, is whether the existing deformity of the wrist is sufficient ground on which to rest an action. An examination of the evidence does not give us much light upon the subject. Mrs. Closson testifies that she is not able to do with her hand all the things she could before the injury. But the exact extent to which she is crippled, we have no means of knowing, — for it was not introduced in evidence, and the medical witnesses in general had no opportunity to make an examination of her. The two gentlemen who did see her were not questioned in such a manner as to elicit an exact description of the degree of deformity and loss of power. They testified in regard to dislocation of the ulna, and disagreed. Every good surgeon, on reading the evidence, will see that there could have been no dislocation

of the ulna at the time of the accident; since it would be impossible for a medical man to avoid discovering such a condition of the parts by the eye, — or, if this will not be allowed by those to whom Dr. Loomis is a stranger, we may say that the wrist-joint could not have all its motions (as it had, by the testimony of both plaintiff and defendant) had dislocation of the ulna existed. Any other discrepancies of the medical witnesses in relation to the wrist may be reconciled by the explanation that the fact was not always kept in sight in the examination by counsel, that the fracture in question was *transverse;* much of the testimony related merely to fracture of the lower end of the radius, as it usually is, oblique, and necessarily attended with overriding of the fragments, by the contraction of the extensor and flexor muscles of the radial side of the wrist, and consequent deformity that could not be overlooked by any physician, and that certainly did not exist four days later, when the patient said to the physician that 'he need not trouble himself any more about the wrist,' for 'that is well enough.' If there was no dislocation then, there is none now, unless the result of some subsequent injury. We have, then, no means of knowing to what extent the plaintiff is limited in the use of her hand. She seemed to have no difficulty in grasping her crutch, and her witnesses gave no testimony as to her inability to use it."

Anything which tends to interfere with the healthy physiological action of a part, or tends to interfere with its nutrition, does harm. Thus the use of bandages, although necessary in the treatment of fractures, should not be continued, after the necessity for them has passed; so, too, a limb that has been broken will not regain its accustomed strength till it has been again required to perform its physiological functions. These elements seem to have entered largely into this case.

The defendant, while he responded promptly to the mandate to render services three miles from his office, perhaps for no fee, was not, and should not be forced to accept a

mandate to render such services at twice that distance, especially when the patient removed herself without consulting him as to the propriety of doing so.

In respect to the discovery of fractures, transverse ones might be overlooked by surgeons of eminent skill, especially transverse fractures in the upper part of the tibia, associated with extensive contusion of the soft tissues with their consecutive swelling. Here spasm of the muscles, and the denticulation of the fracture would prevent crepitus, without the exercise of more force than would be justifiable under the circumstances. The fleshiness of the plaintiff, as testified to by Dr. Loomis, is another element that enters into the difficulty of diagnosis in all cases of fractures.

The occurrence of vesication, had splints and rollers been applied from the first, would have demanded their looser application, if not their complete removal.

The testimony of Dr. Edson as to dislocation of the ulna being an invariable accompaniment of fracture of the radius within an inch and a half of the lower extremity, relates to the marked prominence of the lower end of the ulna, in these fractures. It does not follow that because the head of the ulna is prominent, it is necessarily dislocated; yet that an actual dislocation, with rupture of its ligamentous attachments frequently occurs, there can be no doubt. The radial inclination of the hand is sufficient to account for this prominence, in many cases. Without deformity or crepitation, the surgeon would hardly be justified in pronouncing the injury a fracture, and were he to do so, patients would be too apt to charge him with magnifying the injury for selfish motives, — a charge legitimate surgeons endeavor to give no cause for.

Dr. Thayer, in his remarks, quotes from the older surgeons, in respect to the use of bandages and splints in the treatment of fractures of the lower extremity. The practice of more recent surgeons differs from that laid down by these authorities, in requiring some kind of mechanical support in the treatment of most all fractures. In cases of

erysipelatous or other severe inflammations in a fractured limb, the disuse of splints and bandages to some extent, at least, should be observed.

Brown *v.* Kendall.[1]

(Warren Co. (Ill.) C. Court, January Term, 1874.)

Declaration. "Negligence and unskilfulness, in the setting of and bandaging of a fractured leg, and in the use of improper splints, bandages, medicines, &c., whereby it became much shorter than its natural length.

The second count avers that defendant, at divers times fraudulently, deceitfully, and maliciously represented that by means of his skill and knowledge as a surgeon, he could cure the leg and make it as sound and well as the left leg. Instead of which he so unskilfully, carelessly, and negligently set, and applied improper splints and bandages, and failed to apply extension, and removed splints, &c., at improper times, &c., &c., that by reason thereof, &c., plaintiff suffered loss of use of leg, and parts of bones were discharged and came out of leg so that it became shorter, &c.

To damage of plaintiff of $3,000.

Trial by jury.

History. The team running away, plaintiff jumped from the wagon, and sustained compound fracture of leg, about midway between ankle and knee. The nature of the case sufficiently appears from abstract of evidence.

Abstract of Evidence. — For Plaintiff.

Plaintiff testified: Sent for Kendall, who came in about two hours. First put a wrapping cloth around my leg, set it, put splints on each side, and one for leg to lay on; had a hole for heel to go through; was padded with cotton. He was there every day but two, from November 6th to December 6th. Leg remained on board till Dr. Cooper came.

Dr. Cooper, who superseded Kendall, testified: Inside of

[1] Bill of Exceptions.

limb was out from where it ought to be, three inches, and contraction of muscles caused sharp edge of tibia to come out one and a half inches below original hurt. Skin irritable from maggots and skippers eating this flesh; back of leg shows scars where maggots have eaten the skin. Straightened leg, could not lengthen it. Saw patient next Sunday and applied plaster splints. Bones never got out of their places afterwards. Limb one and a half inches shorter than the other. This was a compound fracture. Break in fibula a little above that in tibia. Scarf-skin in places entirely gone, and true skin eaten by maggots. Attributed the great tenderness of limb to fact of skin being eaten by maggots. Patient weak. Pulse 120 to 130 per minute. On fixing fracture, pain ceased. Ordered him out of bed. As swelling went down, made another plaster-splint. Sharp point of bone finally sloughed off. Think could have, if treated from first, got union with half an inch shortening — would not swear to that. Assuming everything favorable, should anticipate half an inch shortening, not more, might be less.

Cross-examined. Lengthened it an inch or an inch and a half by straightening it. No union at that time. Muscles after they contract for a time take a set, out of which they cannot be drawn. Drew the inference that fibula was broken. Suppose calomel to some extent prevents adhesion.

Dr. Wm. Hamilton (Galesburg, Ill.) testified: Advised Cooper to bring it down to full length, if he could, without too much force. It occurs to me, that fibula might have united, so as to prevent drawing limb to full length. Think with proper care maggots should not have been there. Keeping bones in place is a matter of very great difficulty — sometimes impossible.

Doctor Buzet testified, in cross-examination, that great pains were taken in setting the bone. It was properly done. It had been properly taken care of till the time he saw it. Saw it in three or four days again; then noticed toes inclined outwards. When assisting a physician gratuitously,

at his invitation, consider it a breach of etiquette to notice anything wrong about it.

FOR DEFENCE.

Dr. Kendall, defendant, testified: Fracture was properly set. We commenced with great toe, bound roller around foot, then bound splints clear up, tight as leg would bear. Was there next day, ordered cold water dressing, and salts, and Seidlitz powders. Gave him hydrate of chloral. Gave as much attention to limb as think was necessary. About tenth day opened bandage over wound, saw first maggot. Took off dressings and burned them. Washed limb thoroughly and re-dressed it with new dressings, tight as patient could bear. Applied cloth with sweet cream. About second or third day found little red spot one inch and a half below other sore, looked like a boil, told them it must be spiculas of bones that might work out. Next day found a piece of bone, like finger nail, coming through; could just see edge of it. Gave some *Hydrarg. cum creta.* Have not carried calomel for a year. (On account of loosening of the teeth and sore mouth, it was said he had given calomel.) Buzet thought we could not allay the biliousness without calomel. Asked him to loan me some. He had *Hydrarg. cum creta* (mercury and chalk). Gave bismuth and oxide of cerium. It moved his bowels and checked them so that he was not so sick at his stomach. Was there again the twenty-seventh or twenty-eighth day. Bone then showed about half an inch. Did not think proper time had come for extension. My idea is, that you cannot extend it until it begins to form a bony union, because you don't have to keep it on so long. There was no union at that time. That was the last time I saw him before Dr. Cooper was called. I was not notified that he was to be called. I was notified the next day that he was called.

Dr. S. M. Hamilton (of Monmouth, Ill.) testified: From the testimony, presume the dressing was well enough, was properly set. Compound fractures a great deal more

difficult than simple fractures. Calomel would operate against healing of wounds. Suppose bony union did not commence at the time case passed into Cooper's hands. Maggots hatch two or three minutes after eggs are dropped; plenty of remedies to kill them; would not consider it proper treatment to allow them to remain."

The testimony of the other medical witnesses was corroborative of Dr. Hamilton's, so not necessary to be given.

After instructions by the court, SMITH, J., and consideration of the evidence, the jury found a *verdict for plaintiff in the sum of* $1,375.17½.

Whereupon counsel filed a motion for a new trial.

KENDALL *v.* BROWN.[1]

(Supreme Court of Illinois.)

OPINION by SCOTT, J. "The gravamen of this action is, that, through the unskilful treatment of appellant, the surgeon in charge, appellee's leg became so much shortened he lost the comparative use of it. The pain alleged to have ensued is set forth by way of aggravation of damages. The evidence was conflicting in a marked degree.

The third instruction asked by the appellant was refused. It is as follows: —

'If the leg of the plaintiff has become shortened in consequence of the fracture of the same, or during the course of the treatment subsequent to the fracture, the defendant is not liable therefor, or bound to pay damages in consequence thereof, unless the shortening was due to want of reasonable care and skill on the part of the defendant; and if the jury believe, from the evidence in this case, that extension of the limb could not well or safely be effected, nor the means and appliances for that purpose be safely used before the bony union commenced, and that bony union under proper treatment would not commence, and did not commence, until after the time defendant was discharged, and Dr. Cooper took charge of the case; and that if the

[1] Legal News, 1875.

shortening could be prevented at all, it could only be done by the use of proper extension applied when the bony union did commence, and continued until ossification had sufficiently progressed to retain the leg at its proper length, then the defendant would not be responsible, as the injury, in such case, did not result from negligence or want of proper skill on the part of the defendant; and if the evidence establishes this state of facts the jury should render a verdict in favor of the defendant.'

Held: The refused instruction embodied the whole theory of the defence on this branch of the case; and, whether the hypothetical case stated was borne out by the evidence, ought to have been submitted to the jury. And for the error in refusing to give this instruction the *judgment will be reversed and the cause remanded.*"

The second trial of the case cited *supra*, resulted in a verdict for plaintiff, $1,000 damages.

Branner *v.* Stormont.[1]

Brewer, J. "This was an action for malpractice. The cause alleged was the unskilful and negligent treatment of a compound fracture of plaintiff's leg.

Verdict and judgment were for the defendant.

None of the testimony is preserved, it being stated in the bill of exceptions simply that the plaintiff offered testimony tending to prove the allegations of his petition, and the defendant's testimony tending to disprove them.

The case is before us, therefore, only upon the instructions, and as to them it nowhere appears that all that was given or refused are preserved in the record.

The main questions presented by the instructions have but recently been before this court, in the case of *Tefft* v. *Wilcox*, 6 Kansas, 46, and the views therein expressed seem decisive of this case. The court gave this instruction: —

'The law required the defendants to possess and employ

[1] 19 Kansas, 51.

that degree of skill which ordinarily characterized the profession at the time they treated the limb; and if you find that such injuries resulted from want of such skill the defendants are liable.'

And the court refused this instruction asked by the plaintiff: 'It is the duty of the attending surgeon to exercise such reasonable skill and diligence as thoroughly educated surgeons ordinarily employ; and in judging of this degree of skill in a given case, regard is to be had to the advanced state of the profession at the time. In other words, it is the duty of every artificer to exercise his art rightly and truly as he ought, and this is peculiarly the duty of professional practitioners, to whom the highest interests of man are often necessarily intrusted.'

If the instruction given stated the law fully and correctly, the court was under no obligation to restate that law in the same or different language simply because requested. One statement is enough. A refusal to repeat is no error.

That the instruction given stated the law correctly cannot at this late day be questioned.

Reasonable care and skill is the measure of obligation created by the implied contract of a surgeon, lawyer, or any other professional practitioner. His contract as implied in law is, that he possesses that reasonable degree of learning, skill, and experience, which is ordinarily possessed by others of his profession; that he will use reasonable and ordinary care and diligence in the treatment of the case which he undertakes; and that he will use his best judgment in all cases of doubt as to the proper course of treatment. *Tefft* v. *Wilcox*, 6 Kan. 61; *McCarty* v. *Bauer*, 3 Kan. 241; *McCandless* v. *McWha*, 22 Penn. St. 261; *Leighton* v. *Sargent*, 7 Foster, 460; *Howard* v. *Grover*, 28 Maine, 97; *Simonds* v. *Henry*, 39 Maine, 155.

The instruction refused was framed by uniting detached sentences in the opinion of the court in the case above cited from 22 Penn. St. 261.

That case laid down the rule, as above given, of reason-

able skill and diligence. Perhaps the instruction carefully analyzed does no more than affirm this rule. If so, then, as we have seen, it had already been given to the jury. But there are some expressions in it which seem to carry the idea of a higher obligation ; some, at least, which would be apt to convey such an impression to the jury. If told that it was the duty of a surgeon 'to exercise his art rightly and truly,' they might reasonably understand that he was required in any given case to use such treatment as the circumstances of that case demanded, and that a failure to use such treatment was a breach of duty. This, too, without reference to the cause of such failure, whether mistake of judgment, want of the highest skill, or otherwise. Under these circumstances it was the duty of the court to avoid the use of language which was apt to mislead, and to use only that which plainly and clearly declared the rule. Of some other instructions refused, we are unable to see whether they are applicable to the facts of the case as disclosed by the testimony, and of course cannot say whether they were properly or improperly refused. Of such character is the one that it is the duty of the patient to submit to such treatment as his surgeon prescribes, unless he thereby perils his health or life. Whether this be correct or not is immaterial. For, though correct, it may have been properly refused, because there were no facts developed in the testimony which called for any expression thereof. It is objected that the true measure of damages was not given in the instructions. But the jury never reached the question of damages; and if there be any error in this respect it has wrought no prejudice to the plaintiff. *The judgment will be affirmed.*

All the justices concurring."

CHAPTER VII.

ALLEGED MALPRACTICE IN FRACTURES NEAR ANKLE-JOINT.

MEANS *v.* HALLAM AND BARNES.[1]

(Union Co. (Ill.) C. Court.)

"THE above case was tried before a jury at the February term of court, 1874. Damages laid at $5,000. Verdict for plaintiff for $500. Motion for new trial by defendants; motion allowed and cause continued.

Trial by jury at August term, 1874. Verdict for plaintiff for $1,000. Motion for new trial; motion refused and judgment entered upon the verdict.

Defendants except to the ruling of the court, in overruling motion for new trial. Appeal prayed for and allowed.

ABSTRACT OF EVIDENCE.

Plaintiff testified: Broke my leg January 19, 1872. Dr. Hallam was there in fifteen or twenty minutes. Put it in splints, kept it there three or four days, then put it in box packed with cotton; two or three blisters, Hallam said, made by splints. Hallam said he would be gone several days, that Dr. Barnes would treat it. Did treat it till Hallam got back. Then Hallam put it on what he called a double-inclined plane, and bandaged very tight. Removed home in a short time. Hallam came out some time after, took off bandages; said 'Whew! been bandaged too tight; skin had grown down to bone, flesh wasted away, would grow back all right;' but it never will. First splints reached from knee to ankle; did n't say anything about extending

[1] Bill of Exceptions.

limb; did not extend it. In good health; forty-six years old. First time moved from the farm was on crutches. Badly swollen, and toes nearly touched floor, and heel drawn up six or seven inches. Was so when I went to Ohio. Was treated by Dr. Hart six months. His bill was worth two hundred dollars. Went to Ohio to be treated. Dr. Hart married my cousin. Foot and leg on as straight line as could be. Could work ankle a little.

Dr. D. K. Green testified: Have examined limbs; broken leg three fourths of an inch short. Think it an oblique fracture. First duty of surgeon to adjust fracture by extension. Would give chloroform. If patient would not allow of proper adjustment, would abandon case. Cannot be adjusted without extension and counter-extension. Double-inclined plane used by a great many surgeons for treating fractures of leg and thigh; will not produce extension, nor counter-extension; used by some surgeons to retain fragments in place after adjustment. Double-inclined plane is good treatment, and frequently resorted to by surgeons for a great many years. With best of treatment, by best surgeons and appliances, there is shortening. Might or might not use extension at once.

Cross-examined. When both fracture and dislocation, the rule is to reduce dislocation first. If soft parts, such as tendons, &c., are very much wounded and strained and tender, that might be a good reason for not adjusting or using extension and counter-extension at once. It is a matter of judgment entirely. No doctor can tell except by being there. There are rules, but they are general ones. Shortening does continue sometimes for months after patient is able to move around. It is not possible to use extension in all cases. Stiffness in the joint may continue for a long time after patient has got well. If ligaments were torn in receiving fracture, and a large amount of inflammation afterwards set up, it would be impossible to keep up extension and counter-extension to full extent without great dan-

ger to patient. An oblique fracture is a very difficult fracture to get a good job out of."

From deposition of Dr. *B. F. Hart*, Marietta, Ohio, to whom plaintiff went for treatment, we learn that plaintiff came to his house about October 10, 1872. Foot and ankle much swollen, and painful. Fibula, or small bone, had been bandaged so that upper end of lower fragment was united to tibia, or large bone. Upper fragment of fibula in normal place, causing abrupt or nearly square jog fracture. Advises bag of sand of *three* or *four* pounds for extension. This for night, trust to splints during the day. Patients should be taken up every day. From thirty to forty days *firm* union. Remove splints in six weeks. Toes anchylosed, heel four inches from floor. In February patient could walk without crutch or cane. Her health is permanently injured by treatment and long confinement at time of fracture, causing disease of liver and its attendant, dropsy.[1]

FOR DEFENDANT.

John L. Hallam testified: "Am one of defendants; graduated in Medical Department, University of Missouri. Am a regular graduate. Was told, when patient was picked up, that foot was turned, laterally, at nearly right angles with leg. Had been considerably straightened. Leg swollen, injury and pain, also, below the ankle. Thought it was a dangerous fracture, so stated to them; told them if she got well without foot coming off she would do well. Adjusted fracture, deemed it impossible to apply extension and counter-extension on account of extreme tenderness and swelling. After a few days used double-inclined plane and endeavored to make extension by means of turning screw; could not as ankle was so extremely tender. Visited patient several times to take off extension, because it was so painful. She could not bear it, — at least she said so. Double-inclined plane is extension and counter-extension of itself, foot acting as weight, knee being raised. Inflammation ran high. At

[1] Dropsy more likely dependent on *long-continued* bandaging.

first visited her two or three times a day, then once a day, then every other day. I never used a fracture-box.

Cross-examined. Swelling so great very difficult to trace line of fracture. Ankle-joint was so tender would not bear extension. Told her when parts began to unite it would be necessary to make extension. We did try it, but pain was so great we took it off.

Allen T. Barnes testified: Graduate of Louisville, Kentucky, Medical College. Visited patient four or five times. Was there when doubled-inclined plane was put on. Limb had light side splints. Limb very much swollen, skin yellow, foot cold, circulation slow. Feared gangrene; told Hallam so; said she would be fortunate if foot did not have to be amputated. Tried extension, she could not stand it. Have a hobby — Plaster of Paris dressing. Double-inclined plane good treatment.

Cross-examined. If great laceration or contusion would not benefit to adjust at once. Ankle greatly implicated. In such cases swelling is usually very rapid.

Dr. Pace. May extend limb any time between eight or ten days."

The determination of the obliquity of a fracture immediately after the accident or after consolidation has taken place, is of great difficulty, a *post-mortem* examination being necessary to determine it with any degree of certainty. *Case:* S., age twenty-five, while wrestling, fractured tibia in lower third. Thirty-five years after the limb was carefully examined. It was found to be slightly shortened. The fracture was classified as a nearly transverse fracture of tibia. Dying shortly after the examination was made, the bones of the leg were macerated and cleaned, when it was found that the fracture of the tibia, commencing on inner side, two inches above articulating surface of lower end, extended upwards, outwards, and backwards to end, five inches and a half above same articulating surface or very near the middle of the shaft. The lower fragment was displaced backward half an inch. There was also a fracture of the fibula com-

mencing three fourths of an inch below point of styloid process, which, passing downwards and inwards, ended three inches and a half below point of styloid process. The limb when the *ante-mortem* examination was made was neither dropsical nor 'beefy,' and the examination was carefully made.

Severe laceration of ligamentous tissues, and the high grade of inflammation that would necessarily follow, would forbid extension and counter-extension, as these processes are understood. Straightening the limb, *gentle* extension, and snug, not too tight, application of lateral splints, is about all such an injury would admit of."

Hallam and Barnes *v.* Harriet H. Means.

Opinion by Mr. Justice Craig. "This was an action on the case brought by Harriet H. Means in the Circuit Court of Marion County against appellants, to recover damages for the unskilful and negligent manner in which they as physicians and surgeons treated a broken leg of appellee.

The ground mainly relied upon by appellants to secure a reversal of the judgment is that appellee failed to establish, by a preponderance of evidence, a want of skill or a want of ordinary or proper care on the part of appellants either in adjusting the fracture or treating the broken limb.

The facts in the case have been passed upon by two juries, each of which returned a verdict in favor of appellee. The first trial resulted in a verdict of $500, which, on motion of appellants, the Circuit Court set aside and granted a new trial. Upon the second trial the jury returned a verdict for $1,000, upon which the court rendered judgment.

Where the facts in the case have been passed upon by two juries, each finding the same way, and then a reversal is asked on the ground that the evidence is not sufficient to sustain the verdict, it must be a case in its facts where the verdict is manifestly and clearly in conflict with the proof to justify a reversal.

The law has intrusted the trial of issues of fact before a jury, and where a party has had the benefit of two trials in the mode prescribed by law, an appellate court ought not to interfere except to prevent manifest injustice.

It is true that there is a clear conflict in the evidence as to the skill used by appellants in the treatment of the broken limb, but upon a careful examination of the whole testimony, we think it apparent that the record discloses enough upon which to base the verdict of the jury.

The law required appellants, who held themselves out to the public as physicians and surgeons, to possess, and in their practice use, ordinary skill in their profession.

While perhaps they would not be required to possess the highest degree of skill which they might acquire in the profession, yet they were bound to have, and in their practice use, that degree of skill which is ordinarily possessed by physicians in practice. *Richey* v. *West*, 23 Ill. 385. And where an injury results from a want of ordinary skill, or from a failure to exercise proper diligence and caution in the treatment of a case, the physician must be held responsible.

The question then is, whether appellants in the treatment of appellee used that skill which the law required, or whether there was evidence tending to establish a want of ordinary skill in the treatment.

It appears from the testimony contained in the record, that on the 19th day of January, 1872, appellee's leg was broken. The fracture of the larger bone was oblique, and near the upper part of the lower third of the limb the fracture of the smaller bone was nearly transverse, and was from two to three inches above the ankle-joint.

Immediately after the injury, and within twenty minutes after the leg was broken, appellants were called upon, and undertook the treatment of the case.

Dr. Green, upon examination and measurement, found the broken leg to be three quarters of an inch short. In his evidence before the jury, he said: 'Shortening is caused by lapping of bones; the upper fragment of the smaller bone

has slipped past the lower fragment, and makes a prominence. That is the case with both bones. There is lapping of three fourths of an inch, producing shortening.'

This witness also testified: 'The first duty of a surgeon is to adjust the fracture. I mean by that, extension or pulling out the same as well bone. My practice is to set the bone anyhow. If I find the patient too nervous without, or there is too great rigidity of the muscles, I put them under the influence of chloroform, if they cannot stand it without, and if the patient would not allow a proper adjustment of the fracture, I would abandon the case. The fragment cannot be properly adjusted without extension and counter-extension. Counter-extension means holding it, and extension extending it. It is done by pulling it out the proper length and holding it there.'

We have given this portion of Dr. Green's evidence as he gave it to the jury, for the reason that his testimony is directly in point, and he seems to be skilled in his profession.

According to the medical testimony before the jury, it was the duty of appellants, when they were employed as surgeons to treat the broken limb, to adjust the fracture, and extend the limb to its original length; and when this was accomplished, and the bones placed in opposition, use those appliances in general use among surgeons which are best calculated to and will hold the limb in proper position and at its original length. Was this done by appellants?

When the fracture was adjusted, they do not pretend extension or counter-extension was used.

The excuse for not extending the limb and using counter-extension to hold it to its proper position, was on account of extreme tenderness and swelling.

This excuse is, however, in conflict with the testimony of several witnesses who were present at the time. Appellants were called upon to adjust the fracture within twenty or thirty minutes after the bones were broken. While the limb may have become swollen immediately after the injury,

yet it is unreasonable to suppose swelling would have occurred so soon, or that degree of tenderness then existed that would manifest itself a few days after the accident.

But upon this point we are not, however, left to conjecture. It was proven by several witnesses who were present, that no swelling of the limb had occurred when the fracture was adjusted and placed in splints by appellants.

It is true appellants claim that extension and counter-extension were attempted some days after the fracture was adjusted, and the patient could not endure it; but it does not satisfactorily appear that the ankle-joint was injured, or the fracture so near it as to interfere with proper treatment, but independent of this no good reason is shown why extension and counter-extension was not used in the first instance.

The shortening of the limb, the prominence produced by the lapping of the bones spoken of by Dr. Green, the inability of appellee to use her leg in walking without pain, the jury no doubt concluded from the evidence, were to be attributed to the fact that the bones were not at the proper time placed in opposition, and the limbs extended and held in position, as might have been done by the exercise of reasonable skill which is required of a surgeon in the practice of his profession.

While we are willing to concede the evidence is somewhat conflicting, yet we are not prepared to say, upon consideration of all the testimony, the jury were not justified in arriving at the conclusion reached by the verdict.

It is also claimed by appellants that the third instruction given for appellee was improper, which was as follows: —

'3d. That if you believe, from the evidence, that in the treatment of fractures of bones regard should be had to the direction in which the break occurred; and if the jury believe, from the evidence, that the fracture of bones of the plaintiff, which the defendants treated, required extension in order to secure the proper adjustment of the parts to each other, and that the defendants did not use any means to secure extension, but by a want of skill or by negligence

suffered the broken fragment to be or become misplaced, and that thereby the plaintiff has suffered and become permanently lame and disabled, as charged in the declaration, you should find defendants guilty.'

It is suggested by appellants, 'If inflammation, tenderness, complication of joint and circulation admitted of extension and counter-extension, then it was appellants' duty to use it, and not otherwise.'

While this is true, appellants could not be held responsible on account of a failure to use extension and counter-extension, if the condition of the patient and fracture were such that those appliances could not be resorted to or endured, yet we fail to perceive wherein the instruction could mislead the jury in that regard.

If the character of the injury received was such that appellee could not endure extension and counter-extension, then a failure to resort to those appliances would not show a want of skill or negligence on the part of appellants.

The jury were expressly informed by the instruction, that the injury of which appellee complains must have arisen from the want of skill or negligence of appellants in suffering the broken fragment to become displaced.

It is also urged that appellee's second, fourth, and fifth instructions were argumentative and calculated to mislead. We do not so regard them. They state the law involved substantially correct, and they contain nothing calculated to mislead the jury.

The appellant's twelfth instruction the court modified. In this we perceive no error.

The instruction as asked announced the rule that if appellants possessed ordinary skill they could not be held liable, whether they used ordinary skill or not.

A surgeon, in order to relieve himself of responsibility, must not only possess, but in the practice of the profession must use, ordinary skill.

As the record discloses no substantial error, the judgment will be affirmed. *Affirmed.*"

The principal reason assigned in the decision of the Supreme Court, cited *supra*, for affirming the judgment of the lower court, is that the *facts* in the case were "passed upon by two juries, each finding the same way." Notwithstanding it is an acknowledged principle that juries are confined to the investigation and consideration of facts, and to the application of the law as laid down by the court, observation, in cases in which railroad or other corporations and professional men are parties, show that these, as opposed to the individual plaintiff, have very little chance. Under such circumstances, juries have opinions of their own, usurping the functions of the witness, or have a law of their own, usurping the functions of the court. For this they once might have been impeached. Now, the aggrieved party may move for a new trial with its attendant expenses, or if this be denied he may appeal to a higher court. The reason, given by legal gentlemen, why the verdict of a jury should not be disturbed by the appellate court, except the bill of exceptions show manifest injustice, is, that testimony as it falls from the lips of the witness may be made to appear quite differently when put on paper, and that as much may be inferred from the appearance of the witness and his manner of giving his testimony as from the testimony itself. This, doubtless, is true, and I am not prepared to say that the verdicts and decision in the case are wrong; but I am prepared to say, — and in this I will be sustained by the best authorities in surgery, men whose opportunities for studying such accidents and experience in treating them far exceeds that of any or all the medical experts in the case, — that "extension" by adhesive plaster strips, gaiters, handkerchiefs, &c., is not, as a rule, applied in fractures of the middle or lower third of the leg, nor can it be without running other and graver risks than shortening of three fourths of an inch or less. Of these methods that by adhesive strips is the most unobjectionable, and this method is generally impracticable, for the reason that the short extent of surface upon the sides of the limb *below* the point of fracture, to which the strips

are applied, will not sustain the weight required to overcome the contraction of the muscles which cause the shortening. In fractures of the femur, where the strips may be from eighteen to twenty-four inches in length, with surface sufficient to bind them to the limb with auxiliary strips carried across the limb diagonally, they constantly give way under a drawing force of twelve to twenty pounds. Had excoriations, erysipelas, or gangrene set in, in such a case, from such measures used to make extension, and these were the dangers to be apprehended in such a case, the defendants would have alike been censured. Juries do not understand the difficulties which the most experienced surgeons find in many of their cases. No hypothetical case can be possibly stated whereby a surgeon can determine, positively, what treatment should have been adopted in a given case. Only when the grossest and most palpable negligence of well established surgical or medical principles is shown can any positively unfavorable opinion be sustained.

If medical evidence is little else than a reference to authority, and it would not be very difficult to show that this is a fact, then if standard surgical books were permitted in evidence, as in these cases they should be, an hour's reading therefrom would throw more light upon a given question than all the so-styled "expert" evidence usually offered in such trials. The solemn act of sincerity between the author and the world by the act of publication is quite as binding as an oath, under which the expert is to give an opinion founded upon the general principles of his science, as laid down by these authorities. While it is right that the expert's experience, ability, and sense of right should receive due acknowledgment at the hands of courts and juries, at the same time it must be remembered that all these circumstances are subject to great abuse. *Experience* and *gray hairs* are often appealed to; especially do juries adduce these as evidence of great ability. Of the two, the "gray hairs" are often of the most value. In respect to "experience," a writer has said: "I believe that no small portion of

that odious discrepancy which has prevailed among medical witnesses, whereby the lustre of medicine itself has been tarnished, is chargeable to the prevalent affectation of being men of *experience* rather than men of *learning*."

It is usually such men whom we hear decrying medical authorities. It was in rebuking such a one that the Hon. Chief Justice DALLAS said, "I will not sit here and hear science reviled by ignorant tongues." The discovery and establishment of truth is the ostensible function of courts of justice. This can only be accomplished by the production of the *best* evidence the case is capable of, and this, in the cases under consideration, is not best determined through the oral testimony of many that are offered as medical experts.

ALMOND *v.* NUGENT.[1]

"THIS action was brought against W. R. Nugent and M. D. Sherrick, who were partners in the practice of medicine and surgery. The plaintiff claimed to recover for alleged want of skill, care, and diligence on the part of defendants, who were called by him to treat a compound oblique fracture of both bones of his right leg, between the ankle and the knee. The defendant Sherrick died, and the action was tried by a jury as against Nugent alone. There was a verdict and judgment for plaintiff for $2,000. The defendant appeals.

COLE, J. The court gave to the jury the following instructions, asked by the plaintiff, to wit: 1. That the general principles of law defining the civil responsibilities of physicians and surgeons are the same as those that apply to and govern the conduct of lawyers, engineers, mechanics, ship-builders, brokers, and other classes of men whose employments require them to transact business requiring special skill and knowledge.

2. The implied contract of the physician and surgeon is, that he possesses and will employ, in the treatment of the case, such reasonable skill and diligence as are ordinarily

[1] 34 Iowa, 300.

exercised in his profession by thoroughly educated physicians and surgeons; and in judging of the degree of skill required, regard is to be had to the advanced state of the profession at the time of treatment.

3. The standard of ordinary skill in the profession is on the advance, and he who would not be found wanting must apply himself with diligence, to the most accredited sources of knowledge. He is bound to be up to the improvements of the day, for the patient is entitled to the benefit of these increased lights. The law has no allowance for quackery. It demands qualifications in the profession. He is bound to exercise his art or profession rightly and truly as he ought; for less than this he will be liable in damages to the injured party. Each of these instructions was duly excepted to, and the giving of them is now assigned as error.

In the case of *Smothers* v. *Hanks*, 34 Iowa, 286, we had occasion to determine the correct legal standard of the skill, care, and diligence required of physicians, surgeons, &c. That standard is the reasonable skill, care, and diligence ordinarily exercised by the members of the profession at the time. The idea is that degree of skill and diligence which ordinarily characterizes the profession as a whole, or generally; and not that of any particular class or portion of the profession. In that case we reviewed the case of *McCandless* v. *McWha*, 22 Penn. St. 261, upon Judge WOODWARD'S opinion, from which much of the language of each of the foregoing instructions was taken. We found that it was directly decided in that case, that the general principles of law defining the civil responsibilities of physicians were not the same as apply to engineers, mechanics, and ship-builders. And we also found that it was not there *decided* that the skill and diligence required of physicians and surgeons was that ordinarily exercised by thoroughly educated members of that profession; and it may be further remarked, that the closing sentence of the third instruction was also taken from the same opinion, and repeats the error of that learned judge, who applies the pithy saying of Fitzherbert, that 'it

is the duty of every artificer to exercise his art rightly and truly as he ought,' to *professional* men as well as *artificers*, the very error into which the *nisi prius* court had fallen, and for which its judgment was, by the same opinion, reversed. There was error, therefore, in each of the instructions above set out.

On the trial the court admitted evidence of the declarations of the partner Sherrick, who was then deceased. It is unnecessary to review the several questions and answers *seriatim*. Only those declarations were competent which were made by the partner while engaged in, or which were connected with, the business of the partnership. Upon the subject of exemplary damages we need only remark, that we see nothing in the case, as now presented, justifying such damages, or showing that the jury allowed such.

Judgment reversed."

Slater *v.* Baker and Stapleton.[1]

"Curia. 1. It is objected that this is laid to be a joint undertaking, and therefore ought to be proved, and we are of the opinion that it ought; the question, therefore, is whether there is any evidence of a joint undertaking. We are of opinion there is. Mr. *Stapleton* denies acting alone, but in concurrence with Mr. *Baker* attends the plaintiff every time anything is done, and assists jointly with Mr. *Baker*. This appears in evidence and is sufficient, for there is no occasion to prove an express joint contract, promise, or undertaking. When an offer is made to *Baker* of a guinea, *Stapleton* says, you had better be paid all at least; they both attended plaintiff together every time, and *Stapleton* said we have consulted and done for the best. When the plaintiff complained of what they had done, *Stapleton* considered himself as one of the persons to join in the care of the leg, for he put his hand on the knee when *Baker* nodded, and then the bone cracked; he is the original person aiding in

[1] 2 Wilson, 359.

this matter, and there is no ground for this objection. When we consider the good character of *Baker*, we cannot well conceive why he acted in the manner he did, but many men very skilful in their profession have frequently acted out of the common way for the sake of trying experiments. Several of the witnesses proved that the callus was formed, and that it was proper to remove plaintiff home, that he was free from pain and able to walk with crutches. We cannot conceive what the nature of the instrument made use of is, why did *Baker* put it on when he said that plaintiff had fallen into good hands, and when the plaintiff only sent for him to take off the bandages. It seems as if *Baker* wanted to try an experiment with this new instrument.

2. It is objected that this is not the proper action, and that it ought to have been trespass *vi et armis ;* in answer to this it appears from the evidence of the surgeons, that it was improper to disunite the callus without consent. This is the usage and law of surgeons ; then it was ignorance and unskilfulness in that particular to do contrary to the rule of the profession, what no surgeon ought to have done ; and indeed it is reasonable that a patient should be told what is about to be done to him, that he may take courage and put himself in a situation to enable him to undergo the operation.

3. That the plaintiff ought to receive a satisfaction for the injury, seems to be admitted ; but then it is said the defendants ought to have charged *vi et armis*. The court will not look with eagle eyes to see whether the evidence applies exactly or not to the case ; when they can see the plaintiff has obtained a verdict for such damages as he deserves, they will establish such verdict if it be possible. For anything that appears to the court this was the first experiment made with this new instrument, and if it was, it was a rash action, and he who acts rashly acts ignorantly ; and although the defendants in general may be as skilful in their respective professions as any two gentlemen in England, yet the court cannot help saying, that in this particular case they have acted

ignorantly and unskilfully, contrary to the known rule and usage of surgeons.

Judgment for the plaintiff per totam curiam."

McCandless *v.* McWha.[1]

"The opinion of a majority of the court was delivered by Woodward, J. This was an action on the case by the defendant in error against the plaintiff in error, a respectable physician and surgeon, for malpractice in setting a broken leg of the plaintiff; and the only question of any importance presented for our consideration is, whether the court erred in charging 'that the defendant was bound to bring to his aid the skill necessary for a surgeon to set the leg so as to make it straight and of equal length with the other when healed; and if he did not, he was accountable in damages, — just as a stone-mason or bricklayer would be in building a wall of poor materials, and the wall fell down, or if he built a chimney and it should smoke by reason of a want of skill in its construction.' It is impossible to sustain this proposition. It is not true in the abstract, and if it were true, it was inapplicable to the circumstances of the case under investigation. The implied contract of a physician or surgeon is to restore a fractured limb to its natural perfectness; not to cure, but to treat the case with diligence and skill. The fracture may be so complicated that no skill vouchsafed to man can restore original straightness and length, or the patient may, by wilful disregard of the surgeon's directions, impair the effect of the best conceived measures. He deals not with insensate matter like the the stone-mason or bricklayer, who can choose their materials and adjust them according to mathematical lines; but he has a suffering human being to treat, a nervous system to tranquillize, and a *will* to regulate and control. The evidence before us makes this strong distinction between surgery and masonry, and shows how the judge's inapt illustration was calculated to lead

[1] 22 Harris (Penn.) R. 261.

away the minds of the jury from the true point of the cause. Dr. Duncan describes the fracture as an oblique comminuted one of the tibia and fibula of the leg, about half way between the ankle and the knee; and he says that on one occasion when he was present at a dressing of the limb, he heard Dr. McCandless complain that McWha had loosened the bandages, and he told him that if he loosed them his leg might be shortened; but McWha justified his act because his leg was painful. Now, upon such a state of facts, the question was not whether the doctor had brought to the case skill enough to make the leg as straight and long as the other, but whether he had employed such reasonable skill and diligence, as are ordinarily exercised in his profession. For less than this he is responsible in damages, but if he be held to the measure laid down by the court below, the implied contract on his part amounts to a *warranty of cure;* for which there is no authority in law. In a fracture like this, a shortening of the limb is sometimes an inevitable consequence. Dr. Dorsey, in his Elements of Surgery, speaking of broken legs below the knee, says: 'The fracture of both bones is most frequent; it may be transverse or oblique, simple or compound, comminuted or single. The fragments are occasionally displaced in every direction. In transverse fractures there is generally no shortening of the limb, but in those that are oblique the leg is generally shortened.' And from Ferguson's System of Practical Surgery, cited in the argument, we learn that 'the fissure in the *tibia* may be oblique, and the fragments, two or more, may have a constant tendency to become displaced; there may be great irritability of the muscles, particularly during the early part of the treatment; great restlessness of the patient or unwillingness to submit to the requisite confinement; in short, a vast variety of circumstances likely to cause difficulty in the treatment.' Not to multiply authorities, these are sufficient to show that the rule prescribed by the court is too rigid for this class of cases; that shortening of the leg may result from the most careful and approved

practice, or from the misconduct of the patient. Nothing can be more clear than that it is the duty of the patient to coöperate with his professional adviser, and to conform to the necessary prescriptions; but if he will not, or under pressure of pain cannot, his neglect is his own wrong or misfortune, for which he has no right to hold his surgeon responsible. No man may take advantage of his own wrong, or charge his misfortunes to the account of another. We do not mean to intimate an opinion that this case was properly treated, or that the leg could not have been restored to the length of its fellow; but in view of the diversified circumstances that attend cases of this sort, it was very important that the true rule of professional responsibility should have been given to the jury, with instructions that they should inquire, from all the facts in proof, whether the defendant had come up to it or stopped short of it. We have stated the rule to be reasonable skill and diligence, by which we mean such as thoroughly educated surgeons ordinarily employ. If more than this is expected, it must be expressly stipulated for; but this much every patient has a right to demand in virtue of the implied contract, which results from intrusting his case to a person holding himself out to the world as qualified to practise this important profession. If a patient applies to a man of *different occupation or employment* for his assistance, who either does not exert his skill or administer improper remedies according to the best of his abilities, such person is not liable in damages; but if he applies to a *Surgeon*, and he treats him improperly, he is liable to an action even though he undertook *gratis* to attend the patient, because his situation implies skill in surgery. Per Heath, J., in *Shiels* v. *Blackburn*, 1 Hen. Blac. 161; *Seare* v. *Prentice*, 8 East, 348. The principle is contained in the pithy saying of Fitzherbert, that 'it is the duty of every artificer to exercise his art rightly and truly as he ought.' This is peculiarly the duty of professional practitioners, to whom the highest interests of man are often necessarily intrusted. The law has no allowance for quackery.

It demands *qualification* in the profession practised, not extraordinary skill such as belongs only to few men of rare genius and endowments, but that degree which ordinarily characterizes the profession. And in judging of this degree of skill, in a given case, regard is to be had to the advanced state of the profession at the time.

Discoveries in the natural sciences for the last half century have exerted a sensible influence on all the learned professions, but especially on that of medicine, whose circle of truths has been relatively much enlarged, and besides, there has been a positive progress in that profession resulting from the studies, the experiments, and the diversified practice of its professors. The patient is entitled to the benefit of these increased lights. The physician or surgeon who assumes to exercise the healing art is bound to be up to the improvements of the day. The standard of ordinary skill is on the advance; and he who would not be found wanting, must apply himself with all diligence to the most accredited sources of knowledge.

If, in view of the principles here stated, Dr. McCandless shall be found, on re-trial, to have performed his whole duty to his patient, and that any defects in the limb are due to the patient's fault, or to the peculiarities of the fracture, there ought to be no recovery in damages. The only remaining error assigned is scarcely worthy of notice. The action depended so entirely on its own circumstances that the observation of the court as to the policy of such suits was irrelevant, and we may fairly presume harmless. But for misdirection on the other point the judgment is reversed, and a *venire de novo* awarded."

McCandless *v.* McWha.[1]

"Lowrie, J. The ordinary science, like the ordinary language and customs of every-day-life, is presumed in the trial of causes to be known to both court and jury; and

[1] 25 Pa. 95.

they make use of it in weighing the evidence submitted to them, and in estimating the importance of the ascertained facts. But if there be facts, which are really of influence and importance in a cause, and their influence and importance are not recognized by the court as matters of legal science, or do not fall within the province of the science of common life, then, by themselves, they must be practically irrelevant, and can be used only by appealing to mere prejudice; for they can have no intelligent application to the matter in dispute. If their relevancy depends upon special scientific principles, of which the court is not expected to take judicial notice, and of which the jury are most probably ignorant, then, without those principles, their relevancy cannot appear. When, therefore, such facts are offered to be proved, they must be rejected, unless offered in connection with, or (better still) after sufficient evidence of the scientific principles that reveal their importance. In case it was not thought prudent to rely upon the ordinary science which the jury is expected to possess for the principle, that a fractured limb of an intemperate man is more difficult to cure than that of a temperate one; but we have evidence of it from men of science, and such is the usual practice. Now very certainly it is not a well-known principle of ordinary science that, in judging of the difficulty of such a case, it is important to know, not only the degree of intemperance then existing, but how long it has lasted; and this principle was neither proved nor offered to be. It was, therefore, proper for the court, under these circumstances, to refuse to allow the patient's habits and character, in this respect, to be put in issue for an indefinite period backward. It was surely enough to lay it open for the seven years previous to the injury, if not too much. *Judgment affirmed.*"

Bellinger *v.* Craigue.[1]

"Morgan, J. In this action the plaintiff claims damages of the defendant for the loss of services of his wife, on account of the alleged malpractice of the defendant, who, as surgeon and physician, was employed to set, reduce, and cure a broken leg of plaintiff's wife, but by negligence, ignorance, and unskilfulness in his profession, failed to cure it; and, under his treatment it in fact became incurable. In consequence of which the plaintiff was deprived of her services and put to great expense in procuring other professional aid and assistance. The defendant denied the allegations of the complaint, and answered specially, that the reason why the limb did not heal was through the mere negligence, carelessness, and mismanagement of plaintiff's wife. After issue was thus joined, the defendant sued the plaintiff before a justice of the peace of Little Falls, Herkimer County. The parties duly appeared before the justice and joined issue. The defendant, who was plaintiff before the justice, complained and alleged that Bellinger was indebted to him in the sum of $100 for medicines and professional services, and *especially for professional services and skill bestowed in attending the wife of Bellinger, and in setting, securing, and attending to a fractured limb of Bellinger's wife.* Bellinger's answer before the justice denied each and every allegation of the complainant. It also revealed that the services were so unskilfully performed that they were of no value. And Bellinger claimed judgment for costs of suit.

On the trial before the justice Bellinger informed the justice *that he withdrew his second answer, and all claim and defence founded upon any want of care in Craigue.* Craigue objected to its withdrawal, but the justice overruled the objection. The justice, therefore, on proof of Craigue's bill, for attendance upon Mrs. Bellinger, allowed for every visit, and the price as charged by him. The justice says *that he*

[1] 31 Barb. 534.

did not in fact take into consideration the claim for malpractice. Judgment was rendered for Bellinger for the amount of his bill, $15.50, besides costs of action. The defendant in this action, Dr. Craigue, obtained permission to put in a supplemental answer to the plaintiff's complaint, and to set up the justice's judgment thus obtained as a bar to the plaintiff's demand.

The cause was tried before Justice MULLIN, at Herkimer, in May, 1858; and the plaintiff, Bellinger, having given evidence tending to prove *malpractice*, the defendant, under objections from the plaintiff's counsel, was allowed to prove the pleadings, proceedings, and judgment before the justice, as above detailed. Justice MULLIN, however, reserved the question as to the legal effect of these proceedings, and finally overruled the defence; and the defendant went into proof on his part tending to show that it was not his, but Mrs. Bellinger's fault, that the limb did not get well. The question of negligence was submitted to the jury, and they found a verdict against the defendant, and in favor of the plaintiff, for nine hundred dollars damages. Exceptions being taken by the defendant, the question comes up, on appeal to this court, whether the judgment of the justice, at Little Falls, between the same parties, is a bar to the plaintiff's demand in this action. The plaintiff's counsel makes a point, or rather a suggestion, that the limited jurisdiction of a justice's court will in some way impair or diminish the conclusiveness of his judgments as to matters within his jurisdiction. He, however, finally admits that it is too late to ask a decision against the conclusiveness of a justice's judgment on this ground. And in this concession, which is doubtless due to the authorities in this country, the counsel must see that it is the duty of this court to give full effect to the maxim, *Interest reipublica ut sit finis litium*, by making the judgment of a justice's court final as to the subject matter thereby determined.

There is also a suggestion in the counsel's argument, that the justice's judgment was fraudulently obtained, and there-

fore it may be disregarded, or in some way weakened, so as not to conclude the parties in this action. But it would not become us to listen to this suggestion, when there is no intimation, in the pleadings or evidence, that the judgment was fraudulently obtained.

The question, then, is narrowed down to the single point, whether the plaintiff's demand in this action was adjudicated before the justice's court. It may be conceded that it was not actually litigated there; for it was finally withdrawn from the consideration of the court; and the justice says that he did not in fact take it into consideration. Still it cannot be denied that the judgment of a competent court is not only conclusive on all questions actually and formally litigated, but to all questions *within the issue*, whether formally litigated or not. *Le Guen* v. *Gouverneur*, 1 John. Cases, 492; *Marriot* v. *Hampton*, 7 T. R. 269; *Davis* v. *Tallcot*, 2 Kern. 184; *Jones* v. *Scriven*, 8 John. R. 453; 2 Smith's Lead. Cas. 442 (in notes); and see *Fidler* v. *Cooper*, 19 Wend. 285; *Edwards* v. *Stewart*, 15 Barb. 67.

In this case, the defence being withdrawn, it cannot be said that it was actually litigated there; and if the plaintiff is barred of his action, it is because his demand was *impliedly* and *necessarily* within the issue joined before the justice, and its determination *necessarily* included in the judgment.

A fact *impliedly* averred may be traversed in the same manner as if it was expressly averred. *Prindle* v. *Caruthers*, 15 N. Y. Rep. 429; *Haight* v. *Holley*, 3 Wend. 263; *Chambers* v. *Jones*, 11 East, 406. The general denial of the Code doubtless puts all the allegations of the complaint in issue, whether expressed or implied. If the plaintiff's claim is a denial of the defendant's claim before the justice, and *not new matter*, it is within the issue tried before the justice. But if it is new matter, it was not within the issue. The new matter mentioned in § 149 of the Code is that which admits and avoids the cause of action set up in the complaint, and constitutes a defence. *Brazill* v. *Isham*, 2

Kern. 9; and see 3 Duer, 685; 12 How. 445. It must be specially pleaded. *McKyring* v. *Bull*, 16 N. Y. Rep. 297. The denial of the plaintiff's complaint, before the justice, must therefore be held and regarded as putting in issue all the allegations of the complaint, and as controverting all the facts stated or implied therein; but it did not put in issue any *new matter;* and if the second answer constituted new matter, it was not within the issue formed by the second denial. But was it new matter of defence? or was it admissible under the general denial? Clearly, if Dr. Craigue had set forth the contract in his complaint, as the law would interpret it, he would have substantially charged 'that, being a surgeon and physician, he undertook, for a reasonable compensation to be paid to him by Bellinger, to treat his wife's broken limb with a reasonable degree of care and skill.' The law implies a promise on the part of the surgeon that he has ordinary skill, and that he will execute the business intrusted to him with ordinary care and skill. If he fails in this duty he is guilty of default in his undertaking, and cannot collect the pay for his services, but is liable in damages to the persons who employed him. 1 Chitty on Cont. 482–83. The contract is *entire*, and *performance* is necessary to entitle the surgeon to recover anything. If the complaint had expressed such a contract, and if it had alleged before the justice that the doctor had performed it in all things on his part, a denial of these allegations would have put the question directly in issue. It would not be *new matter* to deny that the doctor had performed his contract as thus stated in his complaint; and yet it would be a full defence to the action, if Bellinger had succeeded in proving it. The law would not on the trial presume that the plaintiff had neglected his duty and made default in his undertaking; for a breach of duty, or negligence, or fraud is not to be presumed. *Starr* v. *Peck*, 1 Hill, 270. The burden of proof is therefore cast upon the defendant, to disprove the allegation of performance, in such a complaint. But if he neglects to offer any such proof, the fact of performance is pre-

sumed, and necessarily must be, to authorize the doctor to recover for his services. The judgment of the justice in favor of the plaintiff, in such a case, would imply performance of the contract on his part. The *fact* of performance is found or adjudicated in favor of the doctor; and I think it cannot be again disputed in an action between the same parties. Now, although *new matter* cannot be proved under a general denial, most of the defences which could have been proved under the old general issue of *non assumpsit*, such as release, statute of limitations, insolvent discharge, arbitrament, &c., must still be brought forward by the defendant as matters of special defence, or the defendant loses the benefit of them. These defences will not support an action, but must be used, if at all, to defeat an action. It is, however, different with a defence called a *counter claim*. That may be used to sustain, as well as to defend, an action. It may coexist with the plaintiff's claim, and is simply a cross-action, to enforce a legal or equitable set-off. It *admits* the plaintiff's demand, but seeks to reduce it, or even extinguish it, by legal or equitable set-off. And I think the defendant always has an election to recoup his damages or wait and bring his suit. It may well be that his damages exceed the plaintiff's demand, and, as he cannot split up his claim, and use part of it to extinguish the plaintiff's demand, and bring suit for the residue, he ought not to be bound to recoup his damages in any case. Nor do I think the authorities require it of him. *Reab* v. *McAlister*, 8 Wend. 109; 14 Ib. 257; 5 Hill, 76. But when there is *no claim* on the part of the plaintiff there cannot, strictly and logically speaking, be a *counter claim*. The claim of Bellinger against the defendant in this case does not admit the defendant's claim, but denies its existence altogether. The two claims cannot coexist. If Bellinger's claim is good, and if judgment had passed in his favor before the suit in the justice's court was disposed of, it would have estopped the defendant from saying that he had performed his contract, and would have barred his action before the justice. This point was decided

in the case of *Edwards* v. *Stewart*, in this court. As estoppels are mutual, the converse of this proposition must be held in this case. And I think the point is thus held in *Davis* v. *Tallcot*, in the Court of Appeals. See Judge GARDINER'S opinion, 2 Kernan, 189.

The result is that the judgment must be reversed, and a new trial granted, costs to abide the result.

ALLEN, J., concurred; MULLIN, J., dissented.

Judgment reversed."

GALLAHER *v.* THOMPSON.[1]

"WRIGHT, J. The second and third counts of the declaration are upon an express undertaking *to cure*. There is no evidence of such an undertaking, and the law does not imply one to that extent, from the mere employment of a surgeon to attend a patient.

When the act to be done depends upon the skill of the operator alone, the law will imply an engagement to use that skill, and to produce the desired result, from the employment of one professing it, and holding himself out to the world as having it. Where the result desired, as the cure in the case before us, depends both upon skill in the use of means, and the influence of other causes, the law raises no such implied engagement; it regards the undertaking to be only for the use of proper means. The retainer of a lawyer obliges him to the right conduct of the suit, but not for the judgment of the court, for that is beyond his control. The retainer of a physician obliges him to the employment of ordinary medical skill in the treatment of the patient; the cure is not with him, but is dependent upon the constitution of the patient, and the influence of causes beyond the control of the physician.

The husbandman employed to cultivate a field is not supposed to engage for the production of an average crop. He

[1] Wright (Ohio), 466.

may plough and sow, plant and water, but the increase is not from him. A smith, engaging to shoe a horse, impliedly engages skill to put the shoe in the proper place, and to avoid the quick in his fastening, because that is a mere physical operation, and the end sought for depends upon nothing but skill. The surgeon, called to a patient with a broken or dislocated limb, and operating, impliedly engages the ordinary skill of the profession in adjusting the fractured bone, or reducing the dislocation, and the subsequent treatment of the patient while he attends; these depend on himself. He is not supposed to engage to cure or to insure a recovery, because a cure depends not upon him. This point has been several times before the court, and has been always so decided. As to the second and third counts, therefore, there is at present a want of evidence to sustain them.

The first count is upon an undertaking with both the plaintiffs; the proof is of an engagement by the husband; this it is urged, is proof of a contract different from the one declared on.

Where the injury is to the absolute rights of the person, — as batteries, injuries to health, reputation, liberty, — and are inflicted upon a married woman, and the suit seeks compensation for the injury to her, or for her personal suffering, the husband must be joined in the suit; for, in case of his death the cause of action survives to her, and she may prosecute the suit to judgment and execution. 1 Ch. Pl. 46, 61; 2 Kent. Com. 151.

The difficulty suggested is not perceived, but it is one open on the record, and may be raised hereafter, if further examination is desired.

It is further objected, that the retainer of the surgeon does not, in law, *suppose* an undertaking to reduce or set the bone skilfully, but that such undertaking must be expressly proved. The setting or putting in place the bones is a mere physical operation; and we think the retainer and the visits and acts of the surgeon do lay a foundation in law to

suppose an undertaking to reduce the leg, and treat the patient skilfully. There is evidence, on the subject of the treatment, which is for the jury. The question, whether the skilful setting, and judicious treatment, should at all events effect a perfect cure, is a distinct one, not necessary now to decide. The motion is overruled.

Evidence was then offered on both sides, as to the manner of treating and dressing the limb, and of surgeons as to what was the usual and customary mode in the profession, &c. When the evidence was closed, *Culberston*, for the plaintiff, admitted that he could only recover on the first count, for the unskilful setting of the bone, and submitted without argument to the jury.

WRIGHT, J. The question turns solely on the credit due to the physicians who have testified as to the practice.

If they are skilful themselves and worthy of credit, your verdict should be for the defendant, for they all sustain the practice; if unworthy of credit, or unskilful, and the other proof shows the practice careless and unskilful, you should give the plaintiff such damages as will compensate for the injury the wife has received.

Verdict and judgment for the defendant."

LEIGHTON *v.* SARGEANT.[1]

(Second Trial in Lower Court.)

"HISTORY and abstract of evidence. The plaintiff, while riding in an open wagon in the town of Strafford, was violently thrown out of his carriage, to some distance, and was severely injured. The right ankle-joint was dislocated, and a comminution of the tibia, with a fracture of the fibula, occurred. The injury is termed a compound dislocation of the ankle-joint, always a very grave injury, involving oftentimes the life of the injured person. This took place on the 1st of September, 1850. As there was no physician then in Strafford, Drs. Grover and Sargeant, of Barnstead,

[1] Boston Medical and Surgical Journal, vol. li. p. 289.

were applied to. They came, dressed the ankle-joint, and both had supervision of the patient, for some three or four weeks. After this, the care of the patient devolved upon Dr. Sargeant, for the space of one hundred and thirty-two days, in which time Dr. Sargeant made sixty-two visits, living at a distance of some six miles. There can be no doubt that the injury was extremly severe, as all such injuries are. There was, of course, great constitutional derangement, and a large tax upon the vital system, requiring all the power of nature to bear it up against the almost fatal consequences arising from compound dislocations of this character. Such, indeed, was the fact, as appears from the evidence in the case. The patient had feverish excitement, attended with cough, and had to resort to stimulation, to withstand the prostrating effects of disease.

The ankle-joint was a long time in healing. For more than two years, at times, some portions of the joint would inflame and suppurate, and spiculæ of bone issue from these ulcerations. Within a year the ankle has become healed, but stiff. The heel of the foot is raised some three inches, and the toes consequently drop, so that the plaintiff can walk with the aid of a cane. There has been a visible improvement in the external appearance of the the foot. Absorption has taken place, muscular action improved, and more motion in the joint observed.

About the time this suit was commenced, Dr. Grover, the other surgeon in the case, died, leaving Dr. Sargeant alone to fight the prejudices of the community, and to bear the whole expense of a strongly-contested and protracted trial.

Dr. Sargeant, in the treatment of this dislocation, used three boxes, made with foot-pieces, capable of elevation. These foot-pieces were made of different angles, varying from two to three and a half inches. The boxes were of home manufacture, and answered very well the purpose for which they were designed.

No attempt was made to prove Dr. Sargeant negligent or inattentive to his patient. On the contrary, it was acknowl-

edged that he was assiduous in his visits and prompt to mitigate the pain and distress with which the plaintiff was often troubled. The plea set up by the prosecution was that the foot should have been kept at right angles with the leg, but that, instead of this, the defendant had let the toes drop from three to five inches, and the foot had become fixed and in an immovable position, and could never be remedied, except by amputation. It was also maintained, that there was complete anchylosis, and that the defendant had showed great carelessness and want of skill in putting a starch bandage upon the limb, thereby causing irritation to the skin, and a disagreeable fetor. The starch bandage was not, however, considered a very great misdemeanor on the part of the defendant, although it formed a large space in the writ. The great object was to make an impression upon the jury, and perchance a successful one.

The plaintiff adduced witnesses to show that the position of the foot was the same as when first placed in the fracture-box; that it had been measured in their presence after the defendant had given up his attendance of the ankle-joint, and the heel appeared as high now, and the toes as much dropped; that the surgeon's attention was called to the position of the foot several times, while the patient was under his care, and he always remarked, with but one exception, that 'the position of the foot was right; that the toes should be dropped a little to get the spring of the foot.'

Two physicians were called by plaintiff, Drs. Perry of Exeter and Hill of Dover. Dr. Perry states that he believes he has had all kinds of dislocations of the ankle-joint, and that he has been successful in the treatment of all of them; that the natural position of the foot at rest is at a right angle with the leg; that passive motion should be made in dislocations of the ankle-joint as early as the third week, to prevent the joint becoming stiff; that there was no difficulty in fixing the foot in any position desired and maintaining it there; it could have been fastened to the foot-pieces of one of the boxes; that there was anchylosis of the

joint, but he could not tell whether bony or ligamentous anchylosis; that the injury was a very severe one, and the breaking into the joint, makes the 'bad' about it. He knew of no reason why the foot could not be kept at right angles, and he never saw an instance where it could not be maintained in that position. Most of the cases where the fracture is in the ankle-joint, are of doubtful cure. The wound in this case was healed up perfectly well; the only trouble was in not keeping the foot in the right position.

The defendant, in the maintenance of his case, proved that the right position of the foot was below a right angle, and the toes should drop about one inch, if complete anchylosis should obtain, with free motion in the knee-joint; that the defendant did make efforts to elevate the foot to nearly right angles, and when he left the treatment of the patient, the toes were less pointed than at the present time; that continued ulceration and suppuration about the joint would tend, from the powerful action of the gastrocnemii muscles, to contract the heel and consequently point the toes.

About twenty witnesses testified that they saw a book three fourths of an inch thick frequently behind the foot-board, which would bring the foot nearly at right angles with the leg. The plaintiff, however, endeavored to prove that, when the book was behind the foot-board, it must have been as late as November, 1850, instead of September or October, as the defence alleged.

The defendant at the first trial (which was reviewed by Supreme Court, see decision 7 Foster, 460) had Drs. Samuel Parkman and H. J. Bigelow, of Boston, as witnesses, and on the present trial Dr. Bigelow alone, with some six surgeons of the locality in which the trial was held.

Dr. Bigelow testified that compound dislocations are very severe injuries, so that amputation is necessary in some instances; in others, surgeons attempt to save the limb, which often results in death. The best treatment cannot make a good limb. It often becomes stiff, and there is great difficulty in keeping the foot at right angles, when there is

great pain and inflammation. If the knee is limber, the proper position of the foot in anchylosis is below a right angle. The toes should drop a little.

In cases such as supposed (namely, where there is a compound dislocation of the ankle-joint, together with comminution of the tibia, &c.) a result, such as the plaintiff's foot now shows, might most certainly occur under the best surgical treatment. I have had cases under my own care, where the result was as bad as this; from such injuries as I suppose this to have been, — a compound fracture and dislocation, or even from a simple dislocation or fracture above the ankle-joint. Not unfrequently as bad a result as this attends the best treatment. I had a case of simple fracture of the leg last winter, where there was a great lateral distortion, as bad as the plaintiff's. I never had a case where the toes pointed exactly like these. I have seen cases as bad or worse.

I think there is a little motion in the ankle-joint of the plaintiff. There is stiffness there, but it does not indicate bony anchylosis. I have doubts about there being anchylosis there. The foot, unrestrained, while inflammation and ulceration were at work around the joint, would be likely to get worse. The weight of the foot and the large muscles of the leg would draw up the heel.

I have had two cases like the plaintiff's during the last winter, in the Massachusetts Hospital. In the first one the tibia was broken, the malleolus fractured into the joint, and the integuments ruptured, so as to make it a compound dislocation. In this case the ankle was pretty stiff when the patient left the hospital. The other was an Irishwoman. The internal malleolus was broken off. I cannot tell about the result of the case, whether stiff or not. In each of these cases the foot was put into the position I always attempt to get, viz.: as near a right angle as possible, if the pain and inflammation will permit.

The proper treatment of a compound dislocation of the ankle-joint is, to examine the foot with reference to the in-

jury; to see if any pieces of bone are loose, and try and extricate them; then place the foot in a proper position, and put it into a box or splint. Keep it so until pain or suppuration occur, then change it as circumstances require. Worry along with it. Do the best you can. Keep it still, if possible, provided it is right as to position. One tendency of the foot is to fall down. Keep it up, if you can, but sometimes the pain will be so great that you will have to let it down. After all one can do, the surgeon is glad to get off with any foot that will do to walk on. If you put the foot in the best position to-day, to-morrow it will get out of its proper position. You cannot fasten the foot so that the patient will not draw the heel back from the foot-board, to ease the pain. If you place ten limbs in a common fracture-box, by the third day not one of them would be in place, because the bandages will slip and stretch.

I could not denominate it improper treatment to fasten a foot to the foot-board of the first box (when it falls some three inches from a right angle), because the position is so comparatively a small and minor point. The stiff joint is something of three months hence. I should put the foot up; but, if the inflammation were great, I should expect it to get out of its position in spite of me. It would not be proper treatment to place the foot at the angle of the first box for eight or ten weeks without making an attempt to elevate it. The position is a small matter in any case of compound dislocation of the ankle-joint, because the great question is to save the foot at all, — to get such a joint as can bear the weight of a person in walking — to make the ankle sound.

The efforts to save the joint are mostly those of nature. A surgeon may do much injury by interference. It is perfectly uncertain at what time passive motion may be used, — not until the wound is healed up and the parts are all sound. Joints are almost all in a state of anchylosis when they come out of the fracture-box, and all passive motion before would be injurious; especially when inflammation

exists. Perhaps six months would be required in some instances before motion should be resorted to.

If a cough afflicts the patient, and there is constitutional irritability and pain, it would be impossible to elevate the foot. It cannot be done.

The testimony of the other surgeons coincided with that of Dr. Bigelow.

The following instructions were given the jury by the court, MINOT, J.: —

1st. The medical man engages that he possesses a reasonable degree of skill, such as is ordinarily possessed by his profession generally.

2d. He engages to exercise that skill with reasonable care and diligence.

3d. He engages to exercise his best judgment, but is not responsible for a mistake of judgment. Beyond this, the defendant is not responsible. The patient must be responsible for all else. If he desires the highest degree of skill and care he must secure it himself.

4th. It is a rule in law that a medical practitioner never insures the result."

In the first suit the jury found damages for plaintiff in the sum of $1,500 and costs, a review of which by the Supreme Court is appended. In the present trial damages were found for the plaintiff in $525 and costs. The case was again taken to the Supreme Court under exceptions, in some respects entirely new.

The following letter from Dr. Valentine Mott to the reporter of the case, Dr. Pray of Dover, N. H., will be of much interest in connection with the case: —

NEW YORK, *September* 21, 1854.

DR. PRAY: Dear Sir, — All compound dislocations of the ankle-joint are very formidable accidents. I have seen and treated many of them.

I have amputated immediately and consecutively; had lock-jaw to supervene upon the attempt to save the limb,

and prove fatal even when amputation was practised; seen the astragalus removed in three instances at the time of the injury, and once by necrosis; and all the patients did well with very fair use of the joint and foot.

It is very difficult in some cases to keep the foot at right angles with the leg, owing to the restlessness of the patient, and the powerful action of the gastrocnemii muscles.

I may have the heel raised one or two inches after the patient gets about, and another may have a case with three inches.

No surgeon ought to be prosecuted and fined for such a result. The patient ought to be thankful that it is so favorable, and pay his surgeon for services, as the defect can readily be remedied by a high heel or some mechanical contrivance.

No absolute rule can be laid down for the treatment of these injuries. Circumstances must govern the judgment of the surgeon in each case.

Very respectfully,
V. MOTT.

The case cited *supra* was again reviewed by the Supreme Court. See decision appended. The case was never tried again, some compromise being reached by the parties to the suit.[1]

LEIGHTON *v.* SARGEANT.[2]

(S. C. review and decision in First Trial.)

"BELL, J. The first question raised by this case relates to the admissibility of the evidence offered by the defendant, that he had received a good medical and surgical education, and was a regularly educated and skilful surgeon and physician. At the first look it would not seem that the decision of this question could involve the discussion of the principles upon which the action is maintained. But as our con-

[1] Dr. Pray: Private Correspondence. [2] 7 Foster (N. H.), 460.

clusion upon this incidental question rests upon those principles, we propose to state them at such length as clearly to show the points upon which we rest our decision. These principles are of great consequence to all classes of professional men, who are employed by others to transact business requiring especial skill and knowledge. The duties and responsibilities of all these classes, as those of lawyers and physicians, machinists, shipmasters, builders, brokers, &c., are governed by the same general rules. 1 Bouv. Inst. 403. These rules it is important should be settled and well understood, since there are times when the verdicts of juries tend to release professional men from even a reasonable responsibility, as there are others when they seem to hold every one who offers his services in any of the professions to an over-rigid accountability, and to make him little less than a warrantor or insurer of the success of every business in which he engages. At the present moment, it is to be feared, there is a tendency to impose some perilous obligations, beyond the requirements of the law, upon some classes of professional men.

What, then, is the contract of the professional man with his employer, in regard to his qualifications and his conduct? Or, since this contract is one implied by the law, what are the duties and obligations of the professional man, recognized by the law in these respects? And here it may be laid down broadly that, without a special contract for that purpose, he is never a warrantor nor insurer. *Hancke* v. *Hooper*, 7 C. & P. 81. He never stipulates for success at all events, and he is never to be tried by the event. By a special contract for that purpose he may bind himself not merely to the exercise of skill, care, and diligence, but to be responsible for results. He may undertake to do certain things, as, for example, a builder may agree to build a house or a ship of a certain description, and he then cannot excuse himself on the ground of his want of sufficient skill. In that case, the maxim of the civil law applies, *spondet peritiam artis*. So a surgeon may contract for a removal of a limb, the physi-

cian for a cure of a disease, or the lawyer for the foreclosure of a mortgage, and by such a contract he becomes a guarantor of the result. He must be understood to have engaged to use a degree of diligence, and attention, and skill adequate to the performance of his undertaking. It is his own fault if he undertakes without sufficient skill, or applies less than the occasion requires. In that case *imperitia culpæ adnumeratur*. It is in these cases alone, either of express contract to do certain work, or to accomplish certain results, or where such contract is necessarily implied, that the rule of the civil law, quoted as above by the elementary writers, has any application here. Story on Bail. 379; Chitty on Con. 165; 3 Black. Com. 122; 2 Greenl. Ev. 144; 1 Bouv. Inst. 403.

By our law, a person who offers his services to the community generally, or to any individual, for employment in any professional capacity as a person of skill, contracts with his employer: 1. That he possesses that reasonable degree of learning, skill, and experience, which is ordinarily possessed by the professors of the same art or science, and which is ordinarily regarded by the community, and by those conversant with that employment, as necessary and sufficient to qualify him to engage in such business. In the language of Story, J., Bailments, 433, 'In all these cases, where skill is required, it is to be understood that it means ordinary skill in the business or employment which the bailee undertakes for. For he is not presumed to engage for extraordinary skill, which belongs to few men only, in his business or employment, or for extraordinary endowments or acquirements. Reasonable skill constitutes the measure of the engagements, in regard to the thing undertaken.' Or, as it is said by Tindal, C. J. (*Lanphier* v. *Phipos*, 8 C. & P. 475), 'Every person who enters into a learned profession undertakes to bring to the exercise of it a reasonable degree of care and skill. He does not undertake, if he is an attorney, that you will, at all events, gain your cause; nor does a surgeon undertake that he will perform a cure; nor does he undertake

to use the highest possible degree of skill. There may be persons who have higher education and greater advantages than he has, but he undertakes to bring a reasonable, fair, and competent degree of skill.' This principle of the common law, as to the engagement of the professional man, for a reasonable degree of skill and no more, has been settled in the case of attorneys, in *Pitt* v. *Yalden*, 4 Burr. 2060; *Laidler* v. *Elliott*, 3 B. & C. 738; *S. C.* 5 D. & R. 635; *Russell* v. *Palmer*, 2 Wils. 325; *Hunter* v. *Caldwell*, 16 L. Jour. Q. B. 274; *S. C.* 11 Jur. 770, and 10 Q. B. 69; *Purves* v. *Landell*, 12 C. & Fin. 91; *Varnum* v. *Martin*, 15 Pick. 440; *Stimpson* v. *Sprague*, 6 Greenl. 470; *Crooker* v. *Hutchinson*, 1 Vt. Rep. 73; *Holmes* v. *Peck*, 1 R. I. Rep. 242; *Wilson* v. *Russ*, 2 Appleton (20 Maine), 421; 1 Leigh's N. P. 196; 2 Greenl. Ev. 12th ed. 124; 1 Saund. P. & E. 163; Chitty on Con. 165.

In the case of physicians and surgeons, in *Seare* v. *Prentice*, 8 East, 348; *Slater* v. *Baker*, 2 Wils. 359; *Moore* v. *Mourgue*, 2 Cowp. 479; *Hancke* v. *Hooper*, 7 C. & P. 81; *Lanphier* v. *Phipos*, 8 C. & P. 475; *Grannis* v. *Branden*, 5 Day, 260; *Landon* v. *Humphrey*, 9 Conn. Rep. 209; *Howard* v. *Grover*, 14 Shep. 97; *Gallaher* v. *Thompson*, Wright, 466; *Mertz* v. *Detweiler*, 8 W. & S. 376; 1 Saund. P. & E. 91; 1 Wms. Saund. 312, note 2; 1 Bouv. Inst. 403; Bell's Com. 459; and as to other employments, in *Pawtnary* v. *Walton*, 1 Rolle's Ab. 92; Bull. N. P. 73; Story on Bail. 280, § 429; Paley on Agency, 78; *Philips* v. *Wood*, 1 N. & M. 434.

II. In the second place, the professional man contracts that he will use reasonable and ordinary care and diligence in the exertion of his skill, and the application of his knowledge, to accomplish the purpose for which he is employed. He does not undertake for extraordinary care or extraordinary diligence, any more than he does for uncommon skill. The general rule is well settled, as in other cases of contracts, supposed to be mutually beneficial to the parties, that the contractor, for services to be performed for another,

agrees to exert such care and diligence in his employment as men of common care and common prudence usually exert in their own business of a similar kind. He agrees to be responsible for the want of such care and attention, and he stipulates in no event, without an express contract for that purpose, for any greater liability. See the cases before cited, and *Kilsby* v. *Williams*, 5 B. & A. 820; *Paterson* v. *Gandasequi*, 15 East, 62; *Howard* v. *Grover*, 14 Shep. 97. Many decisions deny the liability of professional men even to this extent, since they decide that the surgeon or the attorney shall not be held responsible except for *lata culpa* or *crassa negligentia*, manifest fault or gross negligence. *Godefroy* v. *Dalton*, 6 Bing. 461; *S. C.* 4 M. & P. 149; *Purves* v. *Landell*, 12 C. & F. 91; *Wilson* v. *Russ*, 2 Appleton (20 Maine), 421; 1 Leigh's N. P. 196.

Perhaps nothing more is designed to be expressed in these cases than that the defendant is only liable for the want of ordinary care. Upon this point it might be made a question, whether a medical man is not bound to apply extraordinary care, because his charge relates to the lives and health of his patients, which are to them of unequalled importance and interest. But there is no pretence that the physican is bound by any other rule in this respect, than that which governs all classes of men employed in works or services requiring skill, —the rule of ordinary care and diligence. There is, of course, a difference in different cases, as to what constitutes ordinary care, dependent upon the importance and delicacy or difficulty of the thing to be done. 'Different things,' says Story (Bailments, § 429), borrowing a very ancient illustration, 'may require very different care. The care required in building a common doorway is quite different from that required in raising a common pillar; but both come under the description of ordinary care.' Such differences must exist among the cases requiring medical attention. But the common rule still applies, which requires such care and diligence as men in general, of common prudence and ordinary attention, usually apply in similar cases, and not that

extraordinary care which might be applied in such a case by very careful and prudent persons.

III. In stipulating to exert his skill, and apply his diligence and care, the medical and other professional men contract to use their best judgment. Few cases can be supposed where but a single course of measures alone can be adopted, and many must occur, where great differences of opinion may exist as to the best course to be taken. In most cases judgment and discretion are required to be exercised. Freedom from errors of judgment is never contracted for by the attorney or physician.

Ordinary good judgment is necessarily implied in the possession of ordinary skill, and if such share of judgment is fairly exercised, any risk from mere errors and mistakes is upon the employer alone. He, too, has judgment to exercise in the selection of the physician or the lawyer whom he will employ; and if he makes a bad selection, if he fails to choose a man of the best judgment, the result is fairly to be attributed to his own mistake, and is not to be visited upon the man who has honestly done his best endeavor in his service.

It is in accordance with these views that it has been often decided, that a professional man is not responsible for errors of judgment, for mere mistakes, in cases of reasonable doubt and uncertainty. *Kemp* v. *Burt*, 1 N. & M. 262; *S. C.* 4 B. & A. 424; *Shilcock* v. *Passman*, 7 C. & P. 289; *Laidler* v. *Elliott*, 3 B. & C. 738; *S. C.* 5 D. & R. 635; *Montriou* v. *Jefferys*, 2 C. & P. 113; *S. C.* R. & M. 317; *Godefroy* v. *Dalton*, 6 Bing. 461; *S. C.* 4 M. & P. 149; *Baikie* v. *Chandless*, 3 Campb. 17; *Pitt* v. *Yalden*, 4 Burr. 2060; *Reece* v. *Rigby*, 4 B. & A. 202; 1 Saund. P. & E. 63; Chit. Con. 165.

They should be charged with the consequences of mere errors, only where such errors could not have arisen except from want of reasonable skill or diligence. *Hart* v. *Frame*, 3 Jur. 547; *S. C.* Macl. R. 595; 6 C. & F. 193.

The cases cited relate principally to attorneys, but, as has

been remarked, the principles of the law on this subject apply equally to all classes of professional men. And the observations of Lord MANSFIELD, in *Pitt* v. *Yalden*, 4 Burr. 2060, apply with equal force to the case of medical men: 'Attorneys, who conduct themselves with honor and integrity, ought to be protected, when they act to the best of their skill and knowledge. Every man is liable to error, and I should be very sorry that it should be taken for granted that an attorney is answerable for every error or mistake, and to be punished for it by being charged with the debt which he was employed to recover. A counsel may mistake as well as an attorney, yet no one would say that a counsel who had been mistaken shall be charged with the debt.' In *Percy* v. *Millaudon*, 20 Martin R. 75, PORTER, J., remarks: 'It has been said that it will not be sufficient for a professional man to say, he acted to the best of his ability, because he should have formed a more just estimate of his own capacity before he engaged himself. This doctrine, if sound, would make an attorney responsible for every error of judgment, no matter what care or attention he exercised in forming his opinion. It would make him liable in all doubtful cases where the wisdom or legality of one or more alternatives was presented for his consideration, no matter how difficult the subject was. But when a person who is appointed an attorney has the qualifications necessary for the discharge of the ordinary duties of the trust imposed, we are of the opinion that on the occurrence of difficulties in the exercise of it, which offer only a choice of measures, the adoption of a course from which loss ensues cannot make the agent responsible, if the error was one into which a prudent man might have fallen. The contrary doctrine seems to suppose the possession, and require the exercise of perfect wisdom in fallible beings. No man would undertake to render a service to another on such severe conditions.' The uncertainty of the law is almost proverbial. Probably that of the medical profession is not less. Many sects among them en-

tertain different, and almost irreconcilable theories as to the nature and mode of treatment of disease.

Among all these it seems to be conceded that the characters and symptoms of disease vary in persons of different ages, sexes, and habits of life, and of different natural or acquired constitution, and that the treatment of diseases, and that of wounds and fractures, must be more or less varied with the changes of climate, and seasons, and with the peculiarities of persons and places; and that cases of sickness and accident apparently similar, may yet be rendered substantially different by seemingly slight circumstances, easily overlooked, and sometimes difficult of detection. If this is so, the doubts and uncertainties which surround the medical and surgical practitioner, and the errors and mistakes to which he is unavoidably exposed, may well furnish a satisfactory explanation of unfavorable results, when a jury are satisfied of the reasonable skill, diligence, attention, and care exhibited in the treatment.

To charge a physician or surgeon with damages, on the ground of unskilful or negligent treatment of his patient's case, it is never enough to show that he has not treated his patient in that mode, nor used those measures, which in the opinion of others, even medical men, the case required; because such evidence tends to prove errors of judgment, for which the defendant is not responsible, as much as the want of reasonable care and skill, for which he may be responsible. Alone, it is not evidence of the latter, and therefore the party must go further, and prove by other evidence that the defendant assumed the character, and undertook to act as a physician, without the education, knowledge, and skill which entitled him to act in that capacity; that is, he must show that he had not reasonable and ordinary skill, or he is bound to prove, in the same way, that having such knowledge and skill, he neglected to apply them with such care and diligence as in his judgment, properly exercised, the case must have appeared to require; in other words, that he neglected the proper treatment from inattention and careless-

ness. The evidence in support of these two views must naturally be of a very different nature.

In the present case, the declaration is entirely ambiguous, as to which of the positions the plaintiff's counsel would adopt or choose to insist upon. The declaration alleges that the injury occurred because the defendant so negligently, carelessly, and unskilfully conducted himself in and about the treatment, &c., that for want of skill, and the proper application of splints, &c., by and through the mere neglect, default, and unskilfulness of the defendant, the plaintiff was injured.

It is, from this statement, uncertain whether it is to be insisted that the defendant was ignorant, and knew nothing of the proper surgical treatment of such an accident as the plaintiff had suffered; or that, being properly educated and competently learned in his profession, he had acted from negligence and carelessness, contrary to what must have been his better knowledge and judgment, if he had given proper attention to the case.

Nothing in the declaration confined him to either of these views, and nothing had occurred in the course of the trial to restrict the plaintiff to the point of negligence.

He was therefore at liberty to take his position before the jury, that the defendant was ignorant and unskilful, or that he was negligent and careless, or if he so pleased, that he was both unskilful and negligent. Any evidence, then, calculated to repel the inference of ignorance and unskilfulness, to show that he was a man of suitable education and acquirements for the safe practice of his profession, must surely be competent and proper. Such evidence must change the whole position of the case before the jury, because if the jury were satisfied he had proper knowledge and skill, the only question then must be whether he had adopted the course of his treatment from mistake, mere error of judgment, or from negligence and want of ordinary care. This, it is obvious, presents a very different state of the question from that where the points of ignorance, negligence, and error are to be considered.

As the evidence in question seems to us both pertinent and material, as tending to show ordinary knowledge and skill, we are satisfied it should have been received, and for this cause the case must be sent back for a new trial. We have examined the declaration, and it seems to us sufficient.

The evidence of the statements of the witness, made out of court, seem to have been properly rejected.

New trial granted."

LEIGHTON *v.* SARGEANT.[1]

THE following is the opinion of the court in reviewing the second trial.

"WOOD, C. J. One important question involved in the trial related to the degree of skill possessed by the defendant as a surgeon. The fact essential to be proved was, that he was as skilful as surgeons generally in the section of country in which he practised, or, in other language, that his skill was equal to the ordinary skill of the members of the profession in practice. 1. The opinion of the physician with whom the defendant studied his profession was asked, as to the fact whether he possessed 'more than the ordinary skill of the members of the profession, judging from his acquaintance with them.' The court declined to permit the inquiry to be made. Was the ruling correct? It was clearly matter of opinion that was sought. An opinion was asked touching the relative skill of the defendant, so far as the witness could judge. Had the defendant a right to that opinion before the jury? The general rule is, that the opinions of witnesses are not evidence. To this rule, however, there are some exceptions. In *Rochester* v. *Chester*, 3 N. H. 365, it is said, that, 'on questions of science, and trade, and others of the same kind, persons of skill may, no doubt, be permitted to give their opinions in evidence, because the jury, being wholly unacquainted with the particulars on which such

[1] 11 Foster (N. H.), 120.

opinions are founded, would be unable to draw any correct conclusions from hearing them stated; for instance, was a physician to state the particular medicine administered to a patient, from being unacquainted with the operation and effect of such medicine, the jury would be wholly incompetent to judge whether such treatment would probably produce the death of the patient or not. So if a ship-builder should state to a jury of the country the condition of a vessel, they would be unable to judge whether she would be seaworthy or not. So should a mechanic describe to the jury a complicated machine, constructed of different materials, with which they were unacquainted, it would be impossible for them to judge, with any degree of accuracy, of its value.' These cases are given as illustrations of the exceptions to the general rule stated above. It would seem from the illustrations that, when it is supposable that juries can form a correct judgment or opinion, without the aid of the opinions of others, from facts stated, the opinions of others, as a general rule, are not to be received in evidence. But where it is otherwise, their opinions may be received on questions of skill and science. In the case before us, the jury, we conceive, might well be supposed to be able to determine whether the defendant possessed 'the ordinary skill of the members of the profession,' from the facts being stated upon which the witness might found his own opinion. If the witness knew the extent of the knowledge and skill of the members of the profession generally, he might state the facts constituting the evidence of that knowledge and skill among them generally, and also in relation to the particular individual in a case like this; and we think that when they should be stated, the jury might form a correct judgment as to the comparative skill of the profession generally, and of this individual. A competent and skilful surgeon would doubtless well know, and could easily state what constitutes skill in another. And he could describe the extent of the possession of the qualifications constituting it among the profession, and also so far as it relates to the individual.

From such a statement the jury could readily form a judgment and make the requisite comparisons. We think there was no error in the ruling of the court in this branch of the case.

2. We are of the opinion that the general reputation of the Vermont Medical Institute, at which it appeared that the defendant had attended lectures, could have no legitimate bearing upon the question of the skill of the defendant as compared with that of other surgeons. Whatever that reputation might be, the individual student might possess more or less skill than others. The proficiency that one makes in the pursuit of science must depend mainly upon personal talent, and cannot be measured with legal accuracy by the reputation of the institution at which his studies may be pursued.

3. We think, also, that the ruling of the court was correct, in disallowing the third proposed inquiry stated in the case. The object of the inquiry was to lay before the jury the evidence of what practice the defendant had had, and the cases he had treated, and his course of treatment of them, and thus to show his skill. The true objection to the evidence proposed was, that it would not show what the character of the cases was, nor their treatment, except by the defendant's own declarations, which, being in his favor, were not evidence.

4. The evidence proposed to be given of cases in surgery actually treated by the defendant, as showing his skill, was properly rejected. The cases occurred two years after the case in question, and even then, if he were as skilful as the rule of law requires, it would not be legitimately shown that he was so skilled at the date of the act complained of in this case. Skill possessed two years subsequently to the time of the act complained of does not presuppose a like degree of skill at its date.

5. The fact that Dr. Grover, a skilful surgeon, assisted the defendant in the treatment of the plaintiff, could have no tendency to prove either the skill or diligence of the

plaintiff, and particularly when taken in connection with the evidence of their disagreement as to the modes of treatment pursued by the defendant. We do not understand that Grover attended by the procurement of the defendant, and so his attendance furnishes no evidence of diligence on the part of the defendant, and their disagreement would not prove his skill, Grover being confessedly skilful.

6. The account-books were clearly not evidence in his favor as to the times of his visits to other patients. They were nothing more or less than written declarations as to facts material to the cause of the defendant made by himself. They might or might not be accurately and truly made. The case of *Batchelder* v. *Sanborn*, 2 Foster R. 325, is a case directly in point, to show that the books were not competent evidence for the purpose for which they were offered. That action was for flowing the plaintiff's land by means of a dam, and the defendant justified upon the ground of an alleged license to build and maintain it. No direct evidence was given of the license, but the second season after it was built it was carried away by a freshet, and the defendant gave evidence tending to show that the plaintiff worked one day in repairing the dam, and, after offering a witness of that fact, he offered in evidence his book of accounts to establish the fact of the day of the date of the labor. It was decided that the evidence was incompetent for that purpose, it being the mere written statement of a fact by the party himself not calculated to elucidate it, and deriving no credit from it. A similar principle is recognized in *Mattocks* v. *Lyman*, 18 Vt. R. 98.

7. The court below was right in instructing the jury that the burden of proof was on the plaintiff to show a want of proper knowledge and skill on the part of the defendant, but that it was not necessary to prove it by evidence independent of, and unconnected with, the treatment in the case.

It is quite clear that the treatment of the particular case might show such gross ignorance of the business of the surgeon as to put it beyond all doubt that he had not the

amount of skill usually possessed by the profession, or even, in fact, that he had no knowledge of his profession at all. It might appear that the course pursued was wholly unknown to the profession, and that it resulted, as it necessarily must, in detriment to the patient. Nothing further, certainly, would need to be shown to render one answerable for an injury done, who should offer his services as a skilful surgeon.

8. We think the instruction to the jury that, in estimating the damages, they might consider the amount paid by the plaintiff to the defendant for his professional services in the case, was, to a certain extent, erroneous. The damages to which the plaintiff was entitled were those resulting from the injury sustained by reason of the unskilful treatment of the case. Of such would be the pain, loss of time, suffering, and increased delay in obtaining a cure, and, perhaps, a permanent injury, and an expenditure of money necessarily consequent upon the injury sustained by the maltreatment. The amount paid to the defendant, not appearing to be paid wholly for services to remedy the injury resulting from the defendant's want of skill, can hardly be said to be of the character of damages to the plaintiff, entitling him to recover on that account, and to that extent. It might be that the amount paid him far exceeded what would have been necessarily incurred if the plaintiff's case had been properly treated, and for that excess he might well recover; but the direction to the jury went further, and embraced the entire sum paid the defendant. We think there was error in this instruction, as it was stated to the jury. It was not properly limited.

9. The course of the court in sending written instructions to the jury, in absence of the counsel, when called for, and preserving the written request of the jury was entirely justified by the settled practice in this State, as well as by the decision in the case of *Shapley* v. *White*, 6 N. H. Rep. 172. The instructions given were returned and filed with the verdict, and the request preserved by the court, so that it could be

seen by counsel whether any erroneous information or direction had been given to the jury. No harm could possibly result from such a practice.

10. It is now fully settled, in this State, that the affidavit of a juror is admissible in exculpation of himself, and to sustain a verdict, but when it relates to what took place after the jury had retired, is wholly incompetent to impeach it. *Tenney* v. *Evans*, 13 N. H. R. 465 ; *State* v. *Ayer*, 3 Foster R. 301.

11. For the cause that brandy was furnished to the jury, and drank by several of them while deliberating upon the cause, after retiring to form their verdict, we think the verdict must be set aside. The quantity drank was probably small ; but we cannot consent that that fact should make a difference. We fully concur in the remark made by the learned judge in *People* v. *Douglass*, 4 Cow. 36 : 'It will not do to weigh and examine the quantity which may have been taken by the jury, nor the effect produced.' The cause alleged, of slight illness, will not justify the use made of the liquor. The case was not so pressing as not to allow of opportunity for leave to be given for its use, if found to be one properly requiring it. *Brant* v. *Fowler*, 7 Cow. 562. Many other cases in the books go quite far enough to sustain this opinion in this particular.

12. No evidence having been laid before us, in support of the charge of misconduct, on the part of Josiah Moulton, of course no question arises respecting it, claiming our consideration.

Verdict set aside."

CHAPTER VIII.

ALLEGED MALPRACTICE IN DISLOCATIONS.

COLEMAN *v.* MUNHOLLAND.[1]

(Waynesburg, Chester Co. Penn.)

"THIS was a suit brought to recover damages for alleged want of skill. The damages were laid at $3,000. The plaintiff based his case upon the fact that his shoulder was put out of joint by being thrown from a horse in December, 1844, which, he says, defendant was sent for to reduce to its place; that he (Dr. Munholland) regularly attended him for three weeks, applying bandages and other remedies for the injury; that another physician (Dr. Pennington) was called in subsequently, who pronounced the shoulder still out of joint, and assisted by another physician, attempted to reduce the dislocation, but failed. Some time afterwards Dr. Pennington called and pronounced the shoulder still out of joint, and took him to Dr. Atlee, of Lancaster, who operated upon him. The defendant took the ground that Coleman was doing well under his treatment till he went to the fox-chase, about three weeks after the accident; that prior to going to said fox-chase, he was able to raise his arm to the top of his door, and bear some weight upon it.

Dr. J. L. Atlee, of Lancaster, testified clearly as to the operation performed by him when Coleman was brought to Lancaster; that the dislocation was then and there perfectly reduced, and so continued when plaintiff again visited him, about two weeks thereafter. Professor Atlee, of Philadel-

[1] Boston Medical and Surgical Journal, vol. xxxvii. p. 141.

phia, who was present at the operation, also testified to the same effect. These gentlemen also testified that the means used by Dr. Munholland, when he first visited plaintiff, were the usual and proper ones; that the bandaging of the arm to the body was not necessary in all cases.

Drs. Davis, *Coates*, and *Hartman*, also testified that they seldom deem it necessary to bandage the arm to the body in case of dislocation of the shoulder. The Drs. Atlee testified that in cases of dislocation, attended by much swelling (as in this case), physicians were liable to be deceived, and would sometimes pronounce no dislocation, when dislocation existed. Dr. J. L. Atlee had known instances of this in physicians of respectable standing and long practice.

According to plaintiff's statement, made when taken to Lancaster, as given by Dr. Atlee, and according to a witness who was present, the operation by Dr. Pennington was very violent, the force applied powerful and long continued, — the extension downward and backward, — and the pain consequent thereon was said by plaintiff to have been greater than any experienced since the accident.

The physicians examined by the defendant concurred in expressing the opinion, that it was regarded as a breach of professional etiquette to interfere with a patient in charge of a physician, without previous consultation or communication with that physician. The defendant proposed to offer in evidence his diploma as a physician, dated in 1832, and also to examine witnesses as to his reputation and standing as a physician and surgeon; but being objected to by plaintiff as inadmissible, it was ruled out by the court.

The jury, after an able argument on both sides, rendered a *verdict* of $30 damages."

Injuries about the shoulder-joint are frequently followed by wasting of the deltoid, the large triangular muscle that covers in the shoulder, and when this occurs, the bony prominences about the joint become quite marked, leading the surgeon, who examines it several months after the injury, to suppose that there was a fracture or a partial dislocation,

which had been overlooked by the surgeon first in charge. This error has been fallen into by surgeons of more than ordinary skill. Especially old united fractures, through the tuberosities of the humerus, very often present remarkable deformity, closely simulating *dislocations*, and are well calculated to lead surgeons into error. Dislocations of the shoulder are quite apt to recur, and probably did occur after proper reduction in this case.

Bugard *v.* Gross.[1]

(Court C. P. Buffalo, Erie Co. N. Y., June Term, 1847.)

ABSTRACT OF EVIDENCE.

"The plaintiff is twenty-three years old, farmer by occupation, and of good habits. Defendant is a botanic and root doctor, practising in Williamsville, not far from Eleven Mile Creek.

On the 17th of September last, about nine months since, plaintiff was chopping a log in the woods, and by the sudden displacement of that portion upon which he was standing, he was thrown backwards, striking upon the corner and back part of the humerus. Two or three hours afterwards he was seen by the defendant, who upon examination said it was out of joint, and perhaps broken, and after pouring warm water on it about ten minutes to reduce the swelling, he employed extension and counter-extension in a straight line, and professed to have reduced it, yet the arm now, as before, could not be flexed, except very slightly. Defendant then applied two shingle splints, one to the arm, extending from the outer condyle of the humerus, upwards about three inches, and the other from the coronoid process downward on the fore-arm, about the same distance: for what purpose these splints were applied was never attempted to be shown. The arm was then suspended by the side of the body in a nearly straight line, and secured by a couple of handkerchiefs.

[1] Boston Medical and Surgical Journal, vol. xxxvii. p. 162.

September 18th. Defendant took the splint off, and witness noticed that the bones were not in place. Defendant said it was 'swelled up so bad he could hardly tell if it was right or not.' The same dressings were re-applied, and the arm placed in the same extended position, the only one in which it could be kept. Defendant also gave plaintiff a liniment to reduce the swelling, which 'burnt like fire,' and produced excoriations. Defendant then said, 'Put warm water in a bottle, and put it by the arm; may be he catched cold the night before, because he suffered so much.' Said he once set an ankle which had been out six times, &c.

19th. Defendant examined it again, and said it was not right, that plaintiff had got it out of place (although it did not appear but that he had been extremely careful). Having again poured warm water on it during five minutes to reduce the swelling, and make it yield better, two men were directed to make extension and counter-extension in a straight line, while defendant manipulated at the elbow. After about one minute's pulling, Gross said he guessed it was in, and the men ceased pulling. The arm, however, remained as before, nearly straight, and the deformity at the elbow continued.

The same splints and liniment were re-applied, with further directions to pour milk under the dressings if the liniment smarted too much. When defendant went out he said, 'They generally have an iron box to set the elbow in, but I have not got one myself, I will get one of Dr. Ham,' &c.

22d. Defendant removed the dressings and tried to bend the arm, but could not. Saw an ecchymosis in axilla, and directed fomentations of wormwood and vinegar to be applied. The same splints were re-applied, and the liniment continued. Gross said it was 'gaining very fast — it was right.'

This treatment was continued eighteen days, and the arm was then left in its present shape and position. About three or four weeks after the occurrence of the accident, the plaintiff called upon the defendant; the defendant proposed to

'break it over again,' and sent plaintiff to Buffalo for the opinion of Drs. Hill and Davis, both Thompsonians.

The testimony as to the facts having closed, Drs. Hamilton and Sprague were examined as to their professional opinions, &c.

Dr. Hamilton testified that he had seen the arm, that it is a backward luxation of radius and ulna; arm is nearly straight and admits of but very slight motion at elbow-joint; thinks it was always the same luxation, and without fracture; thinks the luxation could have been easily diagnosed within two or three hours after the accident. The swelling could not have been great at that time, or it would have obliterated the fossa between the olecranon and the inner condyle, which one of the witnesses swears was as manifest then as now; if a fracture of any of the bones about the point had actually existed, it would be apparent now, since the treatment was not such as would be proper for any fracture about the elbow-joint, and a deformity at the point of fracture must have resulted. The reduction of this luxation at an early hour is easily effected, — always bends the fore-arm upon the arm to displace the coronoid process from the fossa of the humerus. This is the practice of all modern surgeons except Liston. Liston straightens the arm, but carries it far back so as completely to relax the triceps. The plan described by the witnesses as pursued by the defendant was not the same; he pulled in a straight line and directly forwards, which put the triceps upon the stretch. It would require very great power to reduce the arm in this way. If it were reduced, it could have been bent up to at least a right angle. This is the position in which it ought to have been placed; no splints were necessary. We sometimes use a movable right-angled splint, when it is a child, who will tumble about, but the splints employed could not have been of the least service. The application of stimulating liniments was bad treatment. The reduction could not have been so easily effected on the third as on the first day; if it be true that fractures can be as well reduced after a few days

as at first, it certainly is not so with dislocations — every day increases the difficulty. Dislocated elbow, radius, and ulna backwards, have been reduced after several weeks, but generally the witness would be unwilling to make the attempt after six weeks. There is danger to the limb when the attempt is made at two weeks, and witness would so state to the patient before attempting the reduction.

Dr. Sprague testified that he had examined the arm; it is deformed; there is a dislocation of the radius and ulna backwards; bones are situated in this manner (showing the position of the bones upon a skeleton of an arm which was handed him); the coronoid process is lodged in the fossa of the humerus. Witness reduces this dislocation by bending the arm forcibly across the knee or around the back of a chair, and then he sometimes suddenly brings it straight. The course pursued by the defendant would not be likely to reduce bones; the splints used in this case could not have been of any service; the arm ought to have been kept at right angles; generally no great difficulty in discovering this dislocation; not very liable to get out of place; would not generally attempt to reduce a dislocation of this kind after five, six, or seven weeks.

Dr. M. W. Hill (a botanic physician of Buffalo) testified, on the part of the *defence*, that plaintiff came into his office in February; said he came to have his arm examined; defendant came with him; wished to know what could be done with it. Dr. Hill examined and then took him into Dr. Field's office (an oculist). Dr. Hill said he was formerly of the old school, but is now a botanic doctor. Dr. Hill advised him to go to some other doctor, — Dr. Sprague, he thinks.

Dr. Wm. Field testified that he had heard Dr. Hill, and concurred in all his statements.

Dr. Davis (botanic doctor) testified only in relation to the mental condition of one of defendant's witnesses.

Verdict $1,000 *for plaintiff.*"

If it was Professor Hamilton who gave the above testimony, "always bends arm," &c., he does not now "always," &c. (Fract. and Dis. 632, 5th ed.)

Seare *v.* Prentice.[1]

"This was an action on the case brought by the plaintiff, a shoemaker, against the defendant, whom he had employed as a surgeon, for negligently, ignorantly, and unskilfully reducing a dislocated elbow and fractured arm of the plaintiff, of which he had undertaken the cure. The case was tried before Heath, J., at the last assizes at Hertford; and a verdict having been given for the defendant, under the direction of the learned judge, that direction was now impeached and a rule *nisi* for setting aside the verdict and granting a new trial was moved for by *Gurney*, upon the ground that there was evidence laid before the jury of the unskilful treatment of the plaintiff by the defendant; but that they were told by the learned judge, that unless negligence were proved they could not examine into the want of skill; and the evidence, he now admitted, did not substantiate the charge of negligence though it proved want of skill. And he referred to *Slater* v. *Baker*, 2 Wilson, 359, to show that an action lay against a surgeon for ignorance and unskilfulness in his profession, and to Bull, N. P. 73, where the general rule is laid down, that in all cases where damages accrue to another by the negligence, ignorance, or misbehavior of a person in the duty of his trade or calling, an action on the case will lie, — as if a farrier kill my horse by bad medicine, or refuse to shoe, or prick him in the shoeing.

The court granted a rule *nisi*. And now upon the judge's report being read, the case appeared to be this: —

The plaintiff's brother-in-law proved on his behalf, that on the 2d of April, 1805, the defendant attended the plaintiff, who had fallen from a horse, and told the defendant that

[1] 8 East, 348, April 29, 1807, 47 G. 3.

his arm was broken; the defendant said he thought the arm, which was swollen, was not broken, and applied vinegar to it and bound it with tape. That the plaintiff was under the defendant's care for ten weeks without being cured. He then applied to Mr. Kingston, another surgeon, and after some time could work and put his arm to his head. On cross-examination the same witness proved that the defendant was first sent for at night and came directly; that he regularly attended the plaintiff every day but one till the latter applied to Mr. Pidcock, another surgeon, who, about nine or ten days after the accident, attended and assisted with the defendant in setting the elbow.

Mr. Kingston, the surgeon, then proved that in July, 1805, the plaintiff was brought to him, a cripple in his arm, one bone of which was broken obliquely below the elbow; that the plaintiff's arm was almost straight; he could not turn his wrist, and had no motion in the elbow; that the witness broke the callus and set it again, and made (what the witness himself described as) a very fine cure, which was spoken of about the country. He imputed the failure of the defendant in his attempt to cure the plaintiff to negligence and carelessness; an apprentice boy (he said) might have known better; that the bone might have been set within five hours after the accident; though he admitted that the swelling, if much, must first be reduced, which might take a fortnight. And he recommended the plaintiff to bring an action. He also spoke of a conversation with the defendant, who considered it as a very difficult dislocation to reduce; and said he would make a compensation to the plaintiff.

The learned judge told the jury that the gist of the action was negligence, of which direct evidence might be given; or it might be inferred by the jury if the defendant had proceeded without any regard to the common, ordinary rules of his profession. That unskilfulness alone, without negligence, would not maintain the action. And that he was at a loss to state to the jury what degree of skill ought to be required

of a village surgeon. But that whether or not his directions were accurate in this respect, at any rate the witness Kingston imputed only negligence and carelessness to the defendant and Pidcock, in not discovering the fracture of the bone of the arm when they reduced the dislocated elbow, — which there was no doubt was properly reduced; and that, considering all the circumstances of the case, he did not think that such gross negligence was imputable to the defendant as to make him liable in damages to the plaintiff. The report concluded by stating that the jury found a verdict for the defendant, much to the judge's satisfaction; who intimated that the vaunting language of the witness Kingston must have diminished his credit with the jury.

Shepherd, Serjt., *& Espinasse* were now to have shown cause; but, though all the court seemed to be satisfied, as well now as when the rule was moved for, that the action well lay for unskilfulness in the profession of a surgeon, yet, upon a revision of the evidence as reported, they asked of the plaintiff's counsel what evidence there was of want of skill in the defendant, — Kingston, the surgeon, only imputing to him negligence and carelessness, which the learned judge had stated to be a ground of action, and had left to the jury for their consideration, but which the jury had negatived; as indeed the evidence well warranted them in doing.

Gurney, in support of the rule, said that it was to be collected from the whole of Kingston's evidence that he imputed want of skill to the defendant; and that was shown by the expression used by him, that an apprentice boy might have known better. That so much skill at least was required of a surgeon as to be able to tell whether or not an arm was broken or an elbow dislocated. But it was enough that the question of want of skill was wholly withdrawn from the consideration of the jury.

Lord ELLENBOROUGH, C. J. The surgeon who was examined specifically imputed failure of cure to negligence and carelessness, whatever other expressions he may have used in the manner of giving his evidence, upon which the learned

judge has commented. Therefore, however we may differ from the learned judge, as I certainly do, in thinking that an ordinary degree of skill is necessary for a surgeon who undertakes to perform surgical operations, which is proved by the case of Wilson, and indeed all analogous authorities, in the same manner as it is necessary for every other man to have it in the course of his employment; as a farrier who undertakes to cure my horse must have common skill at least in his business, and that is implied in his undertaking; and although I am ready to admit that a surgeon would be liable for *crassa ignorantia*, and would be justly responsible in damages for having rashly adventured upon the exercise of a profession without the ordinary qualification of skill, to the injury of the patient; yet the question did arise upon the evidence in this case; for no want of skill was imputed to the defendant, and therefore the opinion of the learned judge upon that point does not affect the merits of the verdict upon the evidence in the cause."

The other judges concurred, and GROSS, J., referred to 3 Black. Com. c. 9, pp. 163–64, as confirming the general doctrine.[1]

CARPENTER *v.* BLAKE.[2]

"MULLIN, P. J. On the 28th of June, 1866, the plaintiff was thrown from a horse she was riding, in the village of Dansville, in Livingston County, and her elbow-joint was dislocated. The defendant was a practising physician and surgeon, residing in Dansville, and was called to set the limb. The plaintiff insists that the bones were never restored to their places, or, if they were, that proper measures were not taken to keep them there, and that the result is that the joint has become stiff, and the arm almost useless.

[1] *Vide* Esp. Dig. 601, or vol. ii. p. 222, of New York edition; *Lipscombe* v. *Holmes*, 2 Campb. 441, and reporter's note thereto, pp. 442–43. In *Dr. Groenvelt's case*, cited in Espinasse, 601, the rule is laid down, "that any deviation from the established practice shall be deemed sufficient to charge the surgeon with malpractice, in case of an injury arising to the patient."

[2] 60 Barb. (N. Y.) 488.

There was a verdict in favor of the plaintiff, on which judgment was rendered, and from that judgment the defendant appeals.

The defendant took sundry exceptions to the rulings of the court, in admitting and rejecting evidence, and to the charge to the jury, and to refusals to charge as requested, which I will consider in the order they are presented in the points of his counsel.

The first exception is to overruling the defendant's objection to the question put by the plaintiff's counsel to the witness, Dr. Campbell, 'What would be likely to be the consequences of an omission to flex the arm and rotate it as you have described?' The reply of the witness was not an answer to the question, and he did not answer it. He said 'No; no one of the things is a certain sign that the bones are in place, and everything right; all of them put together would make it very certain that it was in. None of them would harm, and, in the exercise of ordinary prudence and care, it would be the duty of the operator to resort to them.' The question was repeated without objection, and was not even then answered. The defendant was not prejudiced by the ruling.

The second exception is to overruling the defendant's objection to the following question: 'What about the possibility of an arm being stiff, and straight two months after a dislocation? The injury on the 28th of June being stiff, and straight, and the bones in place, on the 26th of August, do you think the bones could get out of place by the 28th of August without external violence? The defendant's counsel objected to the question, on the ground that Drs. Endress and Blake had not said the arm was straight and stiff. The objection assumes that the question was predicated on the testimony of the defendant and Endress, but it does not appear that the plaintiff's counsel so intended. Indeed, there was evidence of other witnesses which would justify the assumption of the facts stated in the question.

But assuming that the question was based on the evidence

of Endress and the defendant. The plaintiff had testified that on Sunday, the 28th of August, she was at the defendant's house, at his request, and he and Dr. Endress examined the arm. The defendant testified that on that day he examined the arm and found it perfectly straight, and the hand supinated; that is, with the palm turned up. The bones, he thought, were then in place; he did not see how it could be out of place and be straight. Dr. Endress testified that on the 28th of August the arm was straight and stiff. Dr. Endress uses the very words of the question. Dr. Blake described the arm as straight, and says that he supposed the stiffness of the arm was caused by the muscles, thus assuming that the joint was stiff, as it unquestionably was; from the time it was set, stiffness was one of the natural results of the injury, and it was to overcome it that the defendant, on repeated occasions, urged the plaintiff to rotate and flex it. No injury was done to the defendant in assuming as a fact what was repeatedly proved, and repeatedly referred to by the defendant himself, that the joint was stiff, although the words straight and stiff may not have been used together at the time referred to in the question.

The plaintiff's counsel embraced, in one of the questions on the subject, the condition of the arm on the 1st of September, the day on which the arm was reset by Drs. Reynale, Endress, and Blake. After administering chloroform, the arm was readily bent, and this bending was relied on by the defendant's counsel as evidence that the bones, on that occasion, were in their places; that they were so from the time they were originally set. To meet and rebut this proof physicians were afterwards called by the plaintiff to testify that it was possible to bend the joint to a very considerable extent, even if the bones were not in place. When Dr. Moore saw the arm, in the latter part of August, the joint was then dislocated, and of course the bones were not in their places; and unless they could be thrown in and out of place, at the will of the plaintiff, or by the action of the muscles alone, the inference might be that they were not in place on either

of the occasions when examined by the defendant, Endress, and Reynale. I cannot agree with the defendant's counsel that the word 'stiff' is used in the question in the sense that the arm had become rigid from the adhesion of the bones at the joint. It meant in the question precisely what is meant in the testimony of the defendant and Endress, — whether it was caused by the muscles or by the adhesion of the bones. There was not a false assumption of the facts stated in the question, and the objection was properly overruled.

The third exception is, that the nonsuit was improperly refused. The motion for a nonsuit rested on the proposition that there was no evidence in the case that would justify the finding by the jury that the defendant had been guilty of any neglect, or want of the requisite care and skill in reducing the luxation in the first instance, or in treating the arm afterwards. The defendant's counsel insists that the dislocation was properly reduced, and the joint remained in its place until the defendant was discharged and another surgeon called. Whether this proposition was established was a question for the jury upon conflicting evidence, and they have found against the defendant; and that finding we cannot disturb. All the surgeons agree that the general rule is, that in cases of dislocation the patient is able to know when the bones are restored to their places by the noise made when they fall into place, and by the immediate relief from pain. The plaintiff did not hear the 'snap,' as it is called, nor was the pain lessened. On the evidence, the jury were justified in finding that the bones were never restored to their places; and no surgeon, except the defendant and Endress, has ventured to express an opinion that the dislocation was ever reduced. The defendant says that, when he set the joint, he extended and rotated the arm, and thus satisfied himself that the bones were in place. The plaintiff says he did neither. It may be that the defendant was in better condition to know what he did on that occasion, and to remember it, than the plaintiff, but it was for the jury to

say to which they would give credit; and there are circumstances which tend to show that the defendant did not bestow either much time or attention to setting the joint, and dressing the arm.

It is conceded, on all hands, that it was his duty to apply his hands, and thus satisfy himself that the bones were brought into place; and whether brought into place, could be ascertained with reasonable certainty by reference to the position of the condyles and olecranon process.

The defendant says that he applied these tests, and the plaintiff says he did nothing but draw the arm around his knee and place it on a pillow at her side, bent to nearly a right angle. The plaintiff's sister and niece were present, but neither were inquired of whether he did or did not do what he claims to have done. It would seem that when the limb extends and rotates freely, it is ordinarily sufficient evidence that the bones are in place. But if there is any doubt about it, it is the duty of the surgeon to measure the arm. This the defendant concededly did not do. It was for the jury to say whether, upon the evidence of the plaintiff and defendant, it was established to their satisfaction that the defendant did not use the means which experience has shown to be proper and necessary in order to justify the surgeon in assuming that he had restored the bones to their places, and thus secured the patient from great suffering, and perhaps the loss of the use of the limb.

The plaintiff and the witness Leach saw the protuberance at the elbow-joint the night of the injury, and Miss Miller says it was spoken of that evening at the house; it was so prominent as to attract the attention of Leach; he compared it with the other elbow, and inquired what it was. Now this protuberance was evidence, to a surgeon, that the bones were not in their places; it was plain to be seen, as there was, at the time the defendant set the joint, and afterwards, when Leach was there, no swelling to conceal it.

It was for the jury to say whether the failure to discover this evidence of the omission to restore the bones to their

places was evidence of want of attention or of want of skill; and if it was evidence of either, it was very significant. It appears that the arm retained, when not controlled by splints, about the same position it was in after the first attempt to reduce the dislocation, and at no time could the plaintiff move it without producing severe pain. The defendant insisted she must move it, and when she attempted it the pain was so great she had to call in help, then had to cease the attempt because of the suffering it caused. This was known to the defendant, and yet it does not seem to have put him on inquiry whether he had not failed to properly set or treat the arm. The plaintiff was satisfied the joint was never properly set, and she so told the defendant; and to ascertain whether her suspicions were well founded, she called on Dr. Moore, and finally employed Dr. Reynale to endeavor to restore her the use of it. It is quite obvious that the work to be done by Reynale was not understood by him and those assisting him, to be to the patient a painless effort — as it would be if it was merely putting in place bones that would fall into and out of place by their own weight, or at the will of the patient. They prepared her for it, by rendering her so unconscious that she did not feel a pin when inserted in the flesh. They then bent the arm and put on bandages, and she awoke to realize the suffering to which the operation had subjected her. The arm in a short time returned to its original position, and has remained there ever since. Now all this occurred after the defendant abandoned the arm, but it reflects very much light upon the important question in issue here, — whether the dislocation was ever reduced. The evidence satisfies me that it was not, and that there was a great want of care and skill in the attempt to replace the bones, or in the subsequent treatment of the arm. The surgeons disagreed as to the necessity of putting the arm in a sling after the dislocation is reduced, some insisting that it was necessary in order to prevent a reluxation, which might occur if the arm was left without using this means of preventing it; while others insist

that it is enough to leave the cure to nature, the surgeon merely applying or directing the application of cold water to the limb, in order to keep down inflammation. The defendant did not use a sling, and it was for the jury, after weighing the reasons assigned by the surgeons for and against the use of it, to say whether it was negligence in the defendant to omit it. The defendant's counsel insists that as it is shown that surgeons do not agree in regard to the propriety of the use of the sling, the jury were not at liberty to find there was negligence on the part of the defendant in omitting it. I cannot assent to this proposition, thus broadly stated. If writers on the treatment of dislocations, or if in the absence of such authority practical surgeons prescribe a mode of reducing them, and treating the joint after the bones are replaced, it is incumbent on surgeons called to treat such an injury to conform to the system of treatment thus established; and if they depart from it, they do it at their peril. In 2 Espinasse's N. P. 601, it is said, it seems that any deviation from the established mode of practice shall be deemed sufficient to charge the surgeon with negligence, in case of an injury arising to the patient. If, however, it is shown that surgeons have applied a different system of treatment and found it to succeed as well or better than the one prescribed, it is not negligence to resort to the system thus practically tested. But before the new practice can be used to shield the surgeon from the charge of malpractice, it must appear that the cases in which it was tested were substantially the same as those treated of by the writer or those treated by practical surgeons, and that the treatment thus resorted to has been successful in so many instances as to establish satisfactorily the propriety and safety of adopting it. The question is, as a general rule, exclusively for the jury, and in this case it was peculiarly so.

If in case of dislocation of the elbow-joint it is enough for the physician to replace the bones, and to put the arm on a pillow, with the part below the joint at a right angle with that above it, and directing the application of cold water, it

would seem to be proper, if not necessary, that the attending surgeon should inform the patient, or those having care of him or her, of the necessity of maintaining that position; and if there is a tendency in the limb to become straight, or if, in consequence of the severity of the injury to the ligaments about the joint, there is great pain, which renders the patient nervous and restless, thus increasing the tendency to reluxation, or to straighten, and as a consequence to stiffen the joint, the danger should be disclosed, to the end that all proper precaution may be taken to prevent it. It is insisted that these dangers were imminent, and yet no word was given. This was, in my judgment, culpable negligence; much of the suffering the plaintiff has undergone, and much of the loss she has sustained, might have been prevented, had the defendant done what it was clearly his duty to do, if he knew the consequences which might result from redislocation of the joint or straightening the arm. It would seem to me that a sling would have in some degree mitigated, if not altogether prevented, the misfortune which has befallen the plaintiff.

Some stress is laid by the plaintiff's counsel upon the abandonment of the plaintiff, by the defendant, a few days after setting the joint, or rather upon the representations as made by him to her on that occasion. I agree with the defendant's counsel that it was the right of the defendant to give up the care of the limb at any time, especially with the plaintiff's assent; but if the defendant insists upon that consent as a shield from liability for any negligence of which he may have been guilty, or for any malpractice committed, it was competent for the plaintiff to show if she could, that her consent was obtained by representations that were false. The plaintiff swears that the defendant represented that the dislocation had been properly reduced, and that he had done for her all it was necessary to do in order to give her a sound arm. These representations, she insisted on the trial, were untrue, and that she released him from further attendance believing them to be true. In order to meet any defence

resting on the plaintiff's consent to the defendant's discharge, it was not necessary to allege the falsity of the representations in the complaint. But if the plaintiff intended to recover damages resulting from the omission to call in surgical aid, because she relied on the alleged false representations, it was necessary that they should be alleged in the complaint. I do not understand that the plaintiff claimed to recover any such damages, and hence the necessity of the averment does not arise.

The next exception is to the charge of the judge, that it was immaterial whether the defendant was or was not a skilful surgeon. It would be error to instruct a jury, in an action against a surgeon for malpractice, that it was not material whether the defendant in the action was or was not skilful in his profession. It is said in 2 Espinasse's N. P. 601, if a person undertakes the cure of any wound, or disease, and by neglect or ignorance the party is not cured, or suffers materially in his health, he may recover damages in this action; but the person must be a common surgeon, or one who makes public profession of such business as surgeon, &c.; for otherwise it was the plaintiff's own fault to trust to an unskilful person, unless such person expressly undertook the cure. Being liable if he holds himself out as a surgeon, as well for want of skill as for negligence, the injured party may bring his action to recover for damages resulting from both, and recover on proving damages resulting from either. *Seare* v. *Prentice*, 4 East, 348; *Slater* v. *Baker*, 2 Wils. 359; 1 Wait's Pr. 336–390; *Bellinger* v. *Craigue*, 31 Barbour, 534. In this case the plaintiff charged want of skill, as well as negligence. So far, then, as the pleading could make want of skill material, it was done. Taking the whole of the charge relating to the materiality of the question of the defendant's skill together, I am satisfied that the judge did not intend to lay down to the jury the proposition so broadly stated as I have stated it. The judge says: 'I suppose it is entirely immaterial to the inquiry before you whether the defendant, at the time he

undertook the reduction of this dislocation, was or was not reputed to be, or was or was not a skilful surgeon. The question is, did he bring to the treatment of that particular case the degree of skill to which I have referred?' The degree of skill to which he referred, was that reasonable 'degree of skill ordinarily possessed by the members of the profession to which he belongs, — the average skill of his profession.' By this language I understand the judge to mean, that if the surgeon does not bring to the treatment of an injury, or of a disease, the ordinary amount of skill possessed by those in the same profession, it is immaterial how high his standing may be. If he has the skill and does not apply it, he is guilty of neglect. If he does not have it, then he is liable for want of it. Whether, therefore, a surgeon possesses ordinary skill may be material in an action for malpractice, but not whether he possesses a higher degree of skill. If this is the proper construction of the charge, and I am of the opinion that it is, I see no objection to it. If the plaintiff had sought to recover on the ground that the defendant did not possess ordinary skill, the instruction was wrong. But I do not understand that any such ground was taken; the liability of the defendant was put on the ground that he did not apply that measure of skill in the treatment of the plaintiff. It seems to me the defendant had no just ground of complaint against that part of the charge under consideration, if it is to receive the construction I have given it. If either party could justly complain of it, it was the plaintiff. I agree with the learned judge, that the questions to be decided were, first, whether the defendant possessed the ordinary skill of persons acting as surgeons; and second, if he did, whether he was chargeable with negligence in not applying it in his treatment of the plaintiff. Whether he possessed greater skill, or had been successful in the treatment of other patients, was wholly immaterial in this case. The inquiry of the jury was brought within the proper limits. The defendant's counsel excepted to the instructions to the jury, that it was impossible to show that a surgeon

possessed the required skill except by showing what skill he applied in the treatment of this particular case. If this part of the charge is to be construed by itself, without reference to other parts of it, I think the proposition cannot be supported. That a physician or surgeon possesses skill, may be shown by those of the same profession, who can speak from personal knowledge of his practice. When the point in issue is, whether skill was applied in a given case, the possession of skill, without proof that it was applied, would be no defence in a case of malpractice. But there may be cases in which such proof is admissible. Evidence of the reputation and standing of the defendant as a surgeon was received without objection in *Slater* v. *Baker*, 2 Wils. 359. When it is proved that the surgeon has omitted altogether the established mode of treatment, and has adopted one that has proved to be injurious, evidence of skill, or of reputation for skill, is wholly immaterial, except to show (what the law presumes) that the defendant possesses the ordinary degree of skill of persons engaged in the same profession. In such a case it is of no consequence how much skill he may have; he has demonstrated a want of it in the treatment of the particular case. In such cases I think the proposition of the judge is right. The failure to use skill, if the surgeon has it, may be negligence; but when the treatment adopted is not in accordance with established practice, but is positively injurious, the case is not one of negligence, but want of skill. It is said in *Slater* v. *Baker*, *supra*, that it is ignorance and unskilfulness to do contrary to the rule of the profession. In ascertaining the meaning of the charge now under consideration, the whole is to be considered. The judge had told the jury that the surgeon did not undertake to cure the plaintiff, but only to bring to the case that ordinary and reasonable degree of skill possessed by the average of the profession. He then proceeded to say that it had been said that if it be shown that the surgeon possesses that ordinary degree of skill, and that in the particular case in hand he exercises that skill with ordinary care and diligence, he then

discharges his whole duty; such a rule, he thought, was calculated to mislead. He then told the jury he supposed it was entirely immaterial to the inquiry before them whether the defendant, at the time he undertook the reduction of the dislocation, was or was not reputed to be, or was or was not a skilful surgeon. The question then was, did he bring to the treatment of that particular case the degree of skill to which he had referred? This part of the charge is not excepted to. The learned judge then added the remark to which exception is taken, and says, the question is, what skill the defendant applied in the particular case. Now, by this charge, I understand the judge to say to the jury, the defendant is required to have an ordinary degree of skill — whether he has any more is wholly immaterial. In the case then in hand, the question for the jury was, whether the defendant applied that degree of skill; and whether he applied it can only be ascertained by proof of the skill actually employed. If such is a reasonable construction of the charge, as I believe it to be, it is correct.

The next exception is to the charge that if the defendant withdrew from the case while the plaintiff labored under a mistaken opinion that the joint had been properly reset, and was in a way to recover without further surgical aid, and that mistaken opinion was induced by his representations or his conduct, then he did not end his responsibility for the case by withdrawing from it. The instruction does not assume that the defendant had discharged his entire duty up to the time he abandoned the case. It is assumed that he had induced the plaintiff to so believe he had, and that belief was created either by the acts or declarations of the defendant; and if it was so induced, his responsibility for the treatment of the case had not ended. If, by this instruction, the learned judge intended to say to the jury that the consent of the plaintiff that the defendant might abandon the case and not be liable for any damage which might thereafter happen to the arm, provided he had truthfully described its condition, I assent to it. That he so intended, I

think is shown by a subsequent clause of the charge, in which he instructed the jury that as to what occurred after the plaintiff consented that the defendant might abandon the case, the defendant was not responsible. I have already expressed the opinion that the consent of the plaintiff, if obtained by false representations, was no protection to the defendant against liability for damages that had occurred before the consent was given. I am at a loss to understand what liability the learned judge intended to tell the jury the defendant was subject to, if he misrepresented the condition of the arm, and thereby obtained the plaintiff's consent that he might abandon the case. If he was to be responsible for any injury thereafter to happen by reason of want of surgical care, it was at variance with a subsequent clause, in which he told them that the defendant was not liable for what occurred after that time. The only construction I can put upon it is, that if the plaintiff's consent was obtained by fraud, the liability of the defendant for damages resulting from want of care or skill, prior to the plaintiff's consent that he might cease to treat the injury, did not terminate; and thus understood, the charge was right. But if by reason of the erroneous advice given by the defendant to the plaintiff as to the condition of her arm, she omitted to call in other surgical aid, whereby she sustained injury, the defendant would be liable, but not in this action. The court had nowhere intimated that the jury might allow for any such injury. The charge is not subject to the criticism made by the defendant's counsel, that the liability of the defendant was not made to depend on the truth or falsity of the defendant's representations, but on the impressions made on the plaintiff's mind by his representations as well as his acts. It is impossible to misunderstand the meaning of the judge. He intended to say that if the defendant had by his acts or language induced the plaintiff to believe that her elbow had been properly set, and was in a fair way to be cured, and such acts and representations were false or unfounded, her consent did not discharge him. That the representations

were false or unfounded the jury might find upon the evidence, and that finding cannot be disturbed.

The next exception is to the refusal to charge that the defendant had the right to cease to attend the plaintiff, after reasonable notice. The court had charged that if the plaintiff consented to the defendant's discharge, after notice of the actual condition of the arm, he was discharged. This was all the court was called on to say. The defendant had not assumed to discharge himself without asking the plaintiff's consent, and a charge as to the abstract right of the defendant was not called for, and the request was, therefore, properly refused. If there could be any difference in the defendant's liability when discharged, with or without the plaintiff's consent, the request might have been proper, but he would be liable in either case for want of care or skill, unless consent should operate to release it.

The next exception is to the refusal to charge that, if the negligence of the plaintiff contributed to the injury, the defendant was not responsible. The refusal was put on the ground that there was no evidence in the case of the plaintiff's negligence, and I concur with the learned judge in the position. If there was any, it was the result of ignorance on the part of the plaintiff as to how the limb should be treated; that ignorance it was the duty of the defendant to remove by giving her such instructions as to its care, as would enable her not only to prevent injury, but to treat it so as to facilitate cure.

The two remaining exceptions are to the refusal to charge that, if the plaintiff discovered anything out of shape or out of place, before and after the defendant ceased to have charge of the arm, it was negligence in the plaintiff to omit to inform the defendant in the one case, or some other surgeon in the other, of the defect. The only evidence on which to predicate these requests is that of the plaintiff, who testifies that, at the time of the injury, and again in some two weeks afterwards, she discovered a protuberance at the elbow. Whether she understood that this indicated any defects in

the reduction of the luxation we do not know; but she says that, on several occasions, before as well as after the defendant ceased to have care of her arm, she insisted to him that the joint had not been set. He repeatedly assured her that it had, and an objection now comes with a bad grace from him, that she did not disclose to a surgeon of some twenty years' practice a fact that should have been discovered by a person of the most ordinary observation.

The defendant's counsel objects to the use by the judge, in his charge, of the remark, that a surgeon is required to exercise the 'average skill' of his profession, and insists that it was calculated to mislead the jury. The true standard of qualification, as he insists, is 'reasonable and ordinary skill.' I understand the charge to use the phrase employed as equivalent to the one employed by counsel. In another part of the charge the judge says he (the surgeon) contracts that he will bring to the case that ordinary and reasonable degree of skill which is possessed by the average of his profession. Again he says, that he undertakes to bring to the case the exercise of that reasonable degree of skill ordinarily possessed by the members of the profession. He then adds the expression complained of by the defendant's counsel: 'I think it the reasonable rule that he is required to exercise the average skill of his profession.' It seems to me to be impossible to misunderstand this part of the charge. The judge lays down the rule as it is given by writers on the law, and by the judges in their instructions to juries, and a change of phraseology does not change the rule; at all events, it is obvious that the judge, in the last sentence cited, did not intend to modify or vary the rule as it had previously been laid down by him. Much was said on the argument, as to the right of a surgeon to exercise his own judgment as to the mode of treatment he will adopt in the case of a wound, or of a disease which he is called upon to treat; that neither the rules prescribed by writers, nor those acted upon by other physicians or surgeons, can apply to every case; and hence latitude must be allowed for the application of remedies which

the attending physician or surgeon has found to be beneficial. If this is not allowed, the argument is, that all progress in the practice of surgery or physic must cease, and the afflicted lose altogether the benefits of experience and of remedies that science furnishes for the alleviation of human suffering. It must be conceded that, if a surgeon is bound, at the peril of being liable for malpractice, to follow the modes of treatment which writers and practitioners have prescribed, the patient may lose the benefits of recent improvements in the treatment of diseases, or discoveries in science, by which new remedies have been brought into use; but this danger is more apparent than real. Some standard, by which to determine the propriety of treatment, must be adopted; otherwise experiment will take the place of skill, and the reckless experimentalist the place of the educated, experienced practitioner. If the case is a new one, the patient must trust to the skill and experience of the surgeon he calls; so must he, if the injury or the disease is attended with injury to other parts, or other diseases have developed themselves for which there are established modes of treatment. But when the case is one as to which a system of treatment has been followed for a long time, there should be no departure from it, unless the surgeon who does it is prepared to take the risk of establishing, by his success, the propriety and safety of his experiment. The rule protects the community against reckless experiments, while it admits the adoption of new remedies and modes of treatment only when their benefits have been demonstrated, or where, from the necessity of the case, the surgeon or physician must be left to the exercise of his own skill and experience.

The judgment is right, and must be affirmed."

WENGER *v.* CALDER.[1]

(Supreme Court of Illinois.)

OPINION by SHELDON, J. "Suit for malpractice in the treatment of a dislocation of the elbow. The following instructions were given for plaintiff: —

1. 'The rule of damages, in this case, if you find for the plaintiff, is the pain and suffering undergone by the plaintiff, and any permanent injury to the arm shown by the evidence, and consequent pecuniary loss, for life, after the time of the plaintiff's coming of age.' 2. 'If you believe, from the evidence, that the defendant, as surgeon, treated the arm of the plaintiff, and failed to use the reasonable care and skill in so treating it, and if you believe, from the evidence, that the defendant was wilfully negligent in failing to use reasonable care and skill in treating the arm, then you may find for the plaintiff any sum you deem proper, under the evidence, not exceeding ten thousand dollars.'

The second of these instructions was deemed irrelevant, and so erroneous, because there was no evidence of wilful negligence.

As to the first, the court say: The injury which the plaintiff originally received to his elbow was not produced by any agency or fault of the defendant; and there is no reason why he should be held to pay for the pain and suffering caused thereby. If there were any additional pain and suffering which the plaintiff underwent because of the want of reasonable care and skill in the treatment, that might have been considered by the jury in assessing damages (this might be done), but nothing more. And there should have been the same limitation in the respect of any permanent injury."

[1] Legal News, vol. viii. 220.

SMITH *v.* IRVIN.

(Mercer Circuit Court, Illinois, 1875.)

HISTORY. "On the 16th of October, 1866, Dr. Geo. Irvin, a respectable physician of Aledo, Mercer County, Illinois, was called to see Frank Smith, a boy eight years of age. Dr. Irvin found an outer luxation of the right knee, the outer condyle of femur resting upon the inner articulating surface of tibia. He reduced it. Called on the 23d, and found the knee and ankle somewhat swollen. Could not find any other trouble about the ankle. Believed it to be sprained, as there was neither swelling nor pain on first visit. Called again on the 31st, and the swelling having very much subsided, dismissed the case.

The treatment pursued was to keep the knee and ankle bathed with cold water; foot in a line with patella. Six months after, boy was brought by his father to Dr. Irvin's office. Boy at this time used a cane to assist him in walking. The ankle appeared to be weak. At this time he could stand squarely upon his foot, but when he walked the toes would turn inward. The father wished Dr. W. D. Craig to see him in consultation, the result of which was to get a shoe, stiffened in the ankle, made of leather and to lace high. The shoe was procured, worn for a while, and then thrown away.

One year after, Dr. E. L. Marshall, of Keithsburg, Ill., put on him a club-foot shoe. This was worn about one year, and then thrown away, since which time no support has been used on the limb. The case is now one of *talipes varus*. The boy is now in his eighteenth year, and will weigh about one hundred and sixty pounds. There is a partial dislocation of the head of the astragalus from the scaphoid: the leg much atrophied.

Suit was brought for damages, for neglect and unskilful treatment of the plaintiff in the sum of $15,000.

The luxation of the knee was denied, in the declaration,

and dislocation of the astragalus claimed as being the injury.

Plea. Dislocation of the knee, with associated injury to the nerves supplying peroneus longus, and brevis muscles, causing paralysis of these muscles. Contraction of antagonistic muscles drew toes inward, and walking without any support, for eight or nine years, the boy being bow-legged, gradually brought the foot to its present condition.

After occupying the attention of the court nearly two weeks, it was given to the jury, which, after being out for forty-eight hours, returned to the court and announced, through their foreman, that they were unable to agree, and were thereupon discharged."

A second trial of the case, December, 1875, again resulted in a disagreement of the jury.

CHAPTER IX.

ALLEGED MALPRACTICE IN AMPUTATIONS.

YOUNG, *by next friend v.* FULLERTON.

(Fulton Circuit Court (Ill.). Change of venue from Mason, 1873.)

HISTORY and abstract of evidence: "In October, 1871, Frederick Young, aged about fourteen years, living in Kerton, Illinois, while hunting, accidentally shot himself in the right fore-arm. The accident occurred about four o'clock in the afternoon, and a neighbor was immediately sent to inform Dr. Fullerton, of Bath, the family physician, and request his attendance. Accompanied by Dr. Hodnell, a dentist, Dr. Fullerton went to Young's, taking no instruments, except his small pocket case. Dr. Hodnell proposed to go and get instruments, but Dr. Fullerton said he did not think they would be needed. They arrived at Young's about eight o'clock, and found the arm completely shattered to pieces at a point about midway between the elbow and wrist, — the hand only hanging by ligaments. The boy had lost so much blood that he was greatly exhausted. He was placed under the influence of chloroform, and the hand and *part* of the mangled flesh cut away. Dr. Fullerton then called for a saw to saw off the bone above the wound. An old rusty hand-saw was handed him, and according to Dr. Hodnell's testimony and Mr. Young's, the defendant made an effort to saw off the bone with that coarse, rusty saw. Dr. Hodnell protested, and told him that was horrible. The defendant then desisted, and sent Mr. Young to Bath, to a cabinet-maker, to get a tenon saw, and some place else, in Bath, to get a bottle

of *Tr. Myrrh.* About eight o'clock A. M., (the next morning?) Young returned with the saw; the boy was again put under the influence of chloroform, and the *large* bone of the arm sawed off, the muscles and skin pulled over and fastened with straps of adhesive plaster, the wound bathed with *tincture of myrrh*, a cloth, wet with myrrh and sweet oil, laid over it, and the stump tied up. The small bone was not cut, no stitches were put in the muscles and skin. The defendant said he made 'flaps' by the method known as the circular operation, using a portion of the mangled flesh (after trimming it down). Other witnesses testified that he made no flaps, but forced the muscles over the bone by traction, or by pulling them down. He directed the wound to be bathed in tincture of myrrh. He frequently visited the boy, and dressed the wound, and told the family it was 'doing well.' The boy, however, was sick for some time, the arm suppurated a great deal, and in about ten days after the operation a piece of the small bone came out of the wound.

A short time after the arm began to heal somewhat, but left the end of the large bone exposed. All winter the arm was very troublesome, and towards the latter part of February, the wound still being painful, the defendant was called again, and told Mr. Young another operation would have to be performed. Young consulted another physician, who examined the arm, and said it must be reamputated. On the 10th of March, Dr. Deffenbacker, of Havana, Dr. Browning, and Dr. Fullerton were at Young's, and Dr. Deffenbacker performed a second operation, taking the arm off two inches further up. He testified that the bone then protruded an inch or more beyond the flesh, and was decayed or *necrosed.* Dr. Browning testified to the same effect. The wound, after this operation, healed in about ten days.

A large number of physicians and surgeons were on the stand, and all testified that the leaving of any mangled flesh, under the circumstances, the continued application of myrrh to the wound, the omission to make flaps, and to secure them with stitches, and the failure to make the small bone smooth, was bad surgery, and ignorant practice.

Dr. Fullerton, on the defence, denied attempting to saw the bone with the old handsaw, but said in a joking manner he made two or three passes with it, but did not touch the bone. That he made flaps, and that the adhesive plaster was sufficient to hold them in place; that the bone *never* became exposed, that he tied up the artery with floss, and that the reason the arm failed to heal was because the boy fell and hurt it; that tincture of myrrh was a recognized remedy in cases of amputation, where there was mangled flesh; that he charged Young fifty dollars for the operation, and the usual fees for subsequent visits, and that the whole treatment was good and skilful on his part. He also testified that he had attended McDowell's College, in St. Louis, one term, and studied several months with Dr. McMurtry of Rushville. He had practised since 1851, and had assisted at one or two dissections.

In rebuttal, Young testified that the defendant tied up the artery with patent thread obtained from Mrs. Young. Hodnell, who administered the chloroform, heard the defendant ask for thread. The latter saw no flaps made, nor did he see the small bone. The defendant said he ought to have a pair of bone forceps.

The case was argued at length. The court instructed the jury, among other points, that the defendant could not be held responsible for the loss of the arm.

The jury, after being out half an hour, returned a verdict for the plaintiff, assessing the damages at $1,000."

The surgeon's duty in such a case was, first to suppress any hemorrhage that might have been present. This being accomplished, he should have sent for the proper instruments, and these instruments need not have been those expressly prepared for amputating limbs. *Adler* v. *Buckley*, 1 Swan (Tenn.) R. 69. The instruments carried in an ordinary pocket case, although not the best, will answer excellently for making the flaps, in an amputation of the arm, whether it be by the circular method, or otherwise; a sharp, keen butcher knife would perhaps answer better, and would very

properly be used, if the occasion required. For section of the bones a tenon saw, if in good condition, would be a very proper instrument; so also would a handsaw, but not such a one as appeared in evidence, unless no other instrument could be procured within twenty-four hours, which evidently was not the case in this instance. A glance at such an instrument should have satisfied the surgeon of its unfitness.

Adler *v.* Buckley.[1]

"This was an action of assumpsit on a surgeon's bill. The facts sufficiently appear from the decision.

Totten, J. It appears that a son of Thomas McClain, whose administrator is the plaintiff in error, fractured his arm, and amputation became necessary. The surgical instruments employed on the occasion were 'a large butcher-knife,' of a very sharp edge, and a 'carpenter's sash-saw,' the teeth of which were as sharp and fine as those of an amputating saw. The operation appears to have been well performed, and the patient, under a proper treatment, soon recovered.

The court charged the jury to the effect that, if the operation was of service to the patient, and he did well and recovered, the surgeon was entitled to compensation, though it was not performed with the highest degree of skill, or might have been performed more skilfully by others.

We are not prepared to say that this charge is erroneous. It is certain that the highest degree of skill is not necessary. The surgeon undertakes for a due and proper degree of skill and diligence in his profession, and for the employment of these he is entitled to a reasonable compensation. His right to recover does not depend upon the fortune of the case, whether it be good or bad, but upon the skill, diligence, and attention bestowed. On the contrary, if the patient suffer injury by reason of the want of skill and diligence in the operation or treatment, or from such cause derives no

[1] 1 Swan (Tenn.) R. 69.

benefit therefrom, in either case, the surgeon is not entitled to any compensation, but is liable in damages for the maltreatment and the negligence. The same may be said of other professions and vocations in which skill and diligence are required. *Seare* v. *Prentice*, 8 East, 350; *Duncan* v. *Blundell*, 3 Starkie, 6; 2 Wilson, 359; Chitty on Contracts, 165; Com. on Con. 246.

We think that the charge of the judge is, in substance, conformable to the rules as we have stated it. For he says: 'If the operation was so unskilfully performed as to be of no service to the patient, the surgeon would not have a right to recover.' It certainly required some degree of skill in anatomy and surgery to perform an operation of the kind, and the success that attended it, though not conclusive, is a circumstance from which skill may be inferred. The instruments employed, drawn from other vocations, were certainly unusual and extraordinary for such purpose. But we are not to infer, from this circumstance alone, that the surgeon had not sufficient art and skill in the use of them. Besides, it is possible that the delay necessary to procure proper instruments might have been fatal to the patient.

Judgment affirmed."

Howard *v.* Grover.[1]

"Wells, J. This case was tried at the November term, 1847, and a verdict was rendered for the plaintiff for $2,025. The defendant was charged with malpractice, as a surgeon. And he moves for a new trial because of the discovery of new evidence, and of excessive damages.

The gentlemen, by whose testimony the alleged newly discovered facts can be shown, all resided in Portland, where the trial was had. No measures were taken to procure their attendance. By the use of ordinary diligence the defendant could have ascertained the facts, to which they were able to testify. If his knowledge of surgery was less extensive

[1] 28 Maine, 97.

than theirs, by inquiry of them the information which they possessed could have been obtained. If any witness had stated that the periosteum had not the power of reproduction, although no such evidence appears in the abstract furnished us, information on this subject could have been presented by consulting works on surgery, or the gentlemen by whom it now appears such an error could be corrected. Parties are expected to exercise due diligence in preparing their causes, and in producing testimony, and the omission to do so does not lay the foundation for a new trial.

There is nothing in this part of the case which would authorize us in disturbing the verdict. Are the damages excessive to such a degree as to require the interference of the court? It is always a delicate undertaking to set aside a verdict on account of excess of damages, especially in cases where the rules by which they are to be measured are vague and uncertain. The power to do it is recognized in many cases, to some of which we refer. *Chambers* v. *Caulfield*, 6 East, 245; *Coffin* v. *Coffin*, 4 Mass. 1; *Bodwell* v. *Osgood*, 3 Pick. 379; *Worster* v. *The Canal Bridge*, 16 Pick. 541; *Blunt* v. *Little*, 3 Mason, 102 (which was an action for a malicious prosecution, the verdict, being for $2,000 damages, was directed to be set aside, unless the plaintiff should remit $500 of his damages); *Wiggin* v. *Coffin*, 3 Story's R. 1 (which was also an action for a malicious prosecution). In the case of *Jacobs* v. *Bangor*, 16 Maine, 187, it is said, that where there is no certain measure of damages, the verdict of a jury is not to be set aside for excessive damages, unless there is reason to believe that they 'were actuated by passion, or by some undue influence, perverting their judgment.' It is unnecessary to refer to that class of cases where verdicts in relation to property, and injuries to it, have been set aside, and new trials granted. Honest and well-meaning men are liable to be led astray, by strong feelings of sympathy, arising from a narrative of painful and protracted sufferings, and while thus excited, often inflict upon the author of them a severer punishment than he merits. It is

not alleged against the defendant that he was ignorant of the duties of his profession, or that he wilfully and intentionally departed from them. It is true that his conduct was not guided with sufficient deliberation, and he relied with a confidence too strong upon his own judgment. The plaintiff had been lame for several years; his thigh-bone was diseased. It is not denied that in 1843 an amputation was necessary, to arrest the progress of the disease. In that year the defendant performed two operations upon the plaintiff's thigh, by amputation. The first was unobjectionable as to the place of amputation, but the bone was left protruded too far from the muscular parts. The ground of complaint is principally for the second, — that there was an error in not cutting off the limb nearer to the body, and want of care and skill in the mode of execution. But it is not shown that the plaintiff sustained any material injury from the mere mode of execution, although it did not accord with the most correct and careful practice. But as soon as the second amputation took place, it was apparent that the bone was infected above the place of amputation. The plaintiff could not then bear another operation. The caries continued to increase in virulence until the whole of the thigh-bone was removed from its socket by another surgeon. The alleged fault of the defendant consisted in an error of judgment, in not removing more of the diseased limb. It is by no means certain that the removal of a larger portion would have been effectual. When the first operation took place, the remaining bone appeared to be perfectly sound, but in a short time the disease manifested itself in such a fearful manner as to require a second amputation. It seems, therefore, highly probable that the whole bone was diseased, and that nothing short of its entire removal would have saved the life of the plaintiff. If such were the fact, it was of little importance at what precise part of the limb, below the hip-joint, the operation was performed. Yet damages against him have been rendered, not because he failed to remove the whole limb, but that he should have removed a few inches of it.

It was the inevitable fate of the plaintiff to be a cripple for life, without any agency of the defendant. The want of judgment of the latter may have protracted his suffering, and caused an increase of expense and loss of time.

The defendant is not liable for a want of the highest degree of skill, but for ordinary skill. *Seare* v. *Prentice*, 8 East, 348; Chitty on Con. 165. And of course only for the want of ordinary care and ordinary judgment. The practice of surgery is indispensable to the community, and while damages should be paid for negligence and carelessness, surgeons should not be deterred from the pursuit of their profession by intemperate and extravagant verdicts. The compensation to surgeons in the country is small, in comparison with what is paid in cities for similar services, and an error of judgment is visited with a severer penalty, which takes from one a larger share of the surplus earnings of life.

We are constrained to believe that the jury must have been actuated 'by some undue influence,' and that justice requires a reduction of the verdict. But we have so much reluctance to interfere with it that we will allow it to remain if the plaintiff will remit $500 of it. If this is not done the verdict will be set aside, and a new trial granted."

CHAPTER X.

ALLEGED MALPRACTICE IN OPHTHALMIC CASES.

McKehoe *v.* Hall.

(District Court, Philadelphia, January Term, 1870.)

Ad damnum, $10,000. Trial by jury. Stroud, J. Verdict for plaintiff in the sum of $800. Verdict set aside by the court, there being no evidence to sustain it.

Through kindness of Dr. Hall I am able to present herewith the history and abstract of evidence: —

"This action was brought to recover damages for loss of an eye, through the alleged want of skill and care of defendant, a surgeon of Wills' Hospital, in operating upon the eye. In opening the case, the want of care and skill was alleged to have been in the performance of the operation; that the knife slipped, or cut deeper than intended; a portion of the humors of the eye escaped, and sight was destroyed. There was not a particle of evidence as to this, and the plaintiff finally rested on the ground that the disease was one which ought not to have been operated for. That it was leucoma, and not staphyloma, for which the operation was, and in which case it would have been entirely proper.

'Leucoma is a dense white opacity of the cornea, caused by the loss or destruction of part of its substance, the gap thus made being replaced by cicatrix tissue, which is opaque and white, instead of being transparent and colorless. It is often the result of an injury, but more frequently it is occasioned by inflammation and deep ulceration induced by other

causes. It is irremediable; no medicinal agent will transform the opaque into transparent tissue.' Lawson on the Injuries to the Eye, p. 78.

'Staphyloma of the cornea is a projecting forward, or bulging out, of the whole or part of the cornea, or of the new tissue which supplies its place, when a part or the whole of it has been destroyed by injury or disease.' 'When a portion of the cornea has been destroyed by sloughing or ulceration, its place is made good by cicatricial tissue, which is more or less white and opaque, and, in many cases, incapable of resisting the normal outward pressure of the parts within the eye; slowly yielding, it bulges and forms an unsightly prominence on the cornea.' Ib. p. 91. See, also, Traité Pratique des Maladies des Yeux, par Wecher, p. 341.

Upon the part of the plaintiff the witnesses were the plaintiff herself, her uncle and aunt, and a Mrs. Redman. These all testified to a disease of this eye that had lasted three years; was described as a speck, fog, and scum over the sight; that the sight was so impaired that, as plaintiff said, she could see, except to read and write; Mrs. Redman said the spot, scum, or fog, of a black and white color, could be seen as far off as from where witness stood, in the middle of the court, to the bench; was thought to be getting smaller from use of a wash given her by Dr. Seeds, of Wilmington; that the right eye had begun to be sore, and that Dr. Hall had promised plaintiff to make the left eye well.

The defendant's witnesses were Drs. Levis, Hall, Morton, Paul, Professor Gross, and the male and female nurses at the hospital. Drs. Hall and Paul, and the male and female nurses, testified the disease was staphyloma; the others as to the nature of the disease and the necessity for the operation; and Drs. Hall and Paul, and the nurses, that the patient knew the operation was not performed to give sight to the eye, but to benefit the other eye, and enable her to wear a glass eye. The patient received treatment for the

other eye from the hospital, at sundry times, for seven months after the operation, and no complaint was ever made about this operation.

ABSTRACT OF EVIDENCE. — FOR PLAINTIFF.

Josephine Kehoe, sworn: Am the plaintiff. Lived in Philadelphia May, 1868, with Mrs. Redman. Had trouble then with my right eye. The left eye was cloudy, a little speck on the eye. It had been treated by Dr. Seeds. He said he would make it a well eye if I would only attend to it. He gave me a wash for it. The effect was that the eye had improved, and the speck was gathering up to fall off. Dr. Seeds had treated me for six months before I saw Dr. Hall. My vision was impaired, — so impaired that I could see to do anything but read and write. When I saw Dr. Hall I could see. The woman I boarded with was going out to Wills' Hospital. I went for weakness in the right eye. They gave a wash for that eye, and Dr. Hall told me if I could come there he would take me in and have the eye well in ten days. I told him I would leave it till I saw Dr. Seeds, but he said he could cure me. He told me he would take me in the hospital and operate on it, and have it well in ten days. I went at four o'clock that day. He was not there. I went the next day. He told me he could not take me in that day, as the day for taking in was over. I went on Saturday. He told me to come on Tuesday at four o'clock. That day he took me in the hospital. He said nothing, only looked at my eye. There I remained till Thursday, when he operated. I was taken in a room there which had a great many doctors in it. I don't know them. He told me to lie down on the table. He gave me ether, and then I recollect nothing more. No one spoke, they were all standing around the table when I revived. I was carried up. My eye was bandaged. The house doctor said my eye would never trouble me again. The next day Dr. Hall asked me if I had any pain. He came to see me every day I was there. I left, under his directions, the eye in the

condition it now is in. He said, before he operated, it would be well in ten days. I understood that he would make it a well eye. Did not think he would cut it out. He asked me if I could see and I told him yes. I told him Dr. Seeds had treated me for that eye. I told Dr. Hall what Dr. Seeds had told me, that the eye could be made well. The speck did not protrude out any more than the other eye. The spot was on the corner of the sight. The speck was only a small one. It had been in that condition for some time.

Cross-examined. I am twenty-one. It was three years before I went to Dr. Hall that I first found I had a trouble with my left eye. The nature of the trouble was a dimness of the sight. Not very long before I went to Dr. Hall I found my sight affected. I found it a little sore from a cold. Dr. Seeds treated me for the left eye. I did not get, at first, from Wills' Hospital any wash for the left eye. I went there to get a wash for the right eye. I never closed the right eye to test the amount of sight I had in the left eye. Dr. Hall did say that he could make a well eye of the left eye. Mrs. Creary was the nurse, and nursed me. I never had a conversation with the nurse about the eye improving my appearance, and getting a glass eye. I never had a conversation with Mr. Smith, the male nurse, about my eye. I never had any conversation with Dr. Paul, except that he told me the eye would not trouble me, and to take care when I left that I did not take cold. The speck on my eye was about the size of the head of a pin. I was there ten days the time I was operated on. About three weeks after I left, I went back to get a wash for my other eye. I went back several times to have the other eye treated during that summer and fall. In all these times I never complained to any one of anything that had been done to my left eye.

Reëxamined. I went back to have the right eye attended to.

John Wall, sworn: Plaintiff is my wife's niece. I recollect her coming from Wilmington to Philadelphia in 1868.

There was something amiss in her left eye. It looked like a fog. There was a speck over the sight of the eye. I only saw it at Wilmington. Her eye appeared to be getting smaller from the stuff Dr. Seeds gave her. The eye was getting smaller. The speck was reducing down off the eye. Dr. Seeds said the disease was leucoma. You could see the eye was something larger than the other eye.

Cross-examined. She had the speck on the eye during the three years I knew her. I never carefully examined it. The other eye had not begun to be sore when she left Wilmington. I would notice the speck if she stood as far off as that railing. I don't know when this speck came on. I only saw her once after she came here. She had a doctor to attend her.

Reëxamined. I did not notice any trouble in the right eye.

Anna Wall, sworn: Plaintiff is my niece. I knew Dr. Seeds to attend her at my house. There was a kind of scum on her eye with a little speck. It did not appear to be very much. It did not protrude, and was no trouble more than the other eye. She said she could see by the side of the scum. Dr. Seeds' wash made it lower down, and made it kind of flat. The right eye had nothing the matter with it.

Cross-examined. It was about three years the scum began on her eye. I do not know of any cause for it. I recollect it when it first appeared. It was partly black, a little white. That was when it first came. It covered a little over the white of the eye, and a little over the sight. The wash was carrying it off of the eye. One side of the speck was black, and a little white. I cannot say how large it was; you could not see it very far off.

Reëxamined. It partly covered the white of the eye. There was no trouble in raising the lid or shutting it.

Mrs. Redman, sworn: I recollect this girl in May, 1868, when she went to the asylum. It looked like a scum on the eye — on the side of the eye. It did not seem so much like

a pearl on the eye. It was larger than the head of a pin. You could see it at a distance.

Question by the judge: You could see it as far as I am from you?

Ans.: You could see there was a scum on the eye as far as that railing. Any how, I don't know if the speck was large enough to prevent the lid falling. It was dark, cloudy-looking, and on one side of the eye. I don't think it was directly in the centre of the eye. I have heard her say that she could see the light of a lamp when it was lit.

Seth Pancoast, M. D., affirmed: Am a physician. Graduated in 1851–2, at (Philadelphia?) University. Been practising medicine ever since, except when I had oil on the brain.

Mr. Pancoast objected to his giving his opinion as an expert upon the testimony of the plaintiff alone. *Objection sustained.*

FOR DEFENDANT.

Mr. Hannis, sworn: I am one of the board of managers of Wills' Hospital.

Offered to prove the regulations of the hospital and admission of plaintiff. *Objected to, and withdrawn for the present.*

Dr. R. J. Levis, sworn: Am a physician, and have given my particular attention to diseases of the eye. Staphyloma is white, dense, totally opaque; will not transmit light for purposes of vision. A perception of light only is recognized. Leucoma is a cicatricial formation over cornea, never curable. Staphyloma is never amenable to treatment. The disfiguration is only got rid of by excision; medical science does not know of any remedy that will restore transparency to the eye diseased by either staphyloma or leucoma. I would cut away the diseased part to get rid of inflammation of the other eye. Sympathetic inflammation of the other eye is very common.

Cross-examined. Leucoma is a change in the structure of

the cornea. This stump (examining plaintiff's eye) is a good stump for an artificial eye, and shows a very favorable result from the operation.

Dr. A. D. Hall (defendant), sworn: Am a practising physician. Graduated at Jefferson, 1854. Have, without interruption, practised ever since. Have been surgeon of Wills' Hospital. Was resident surgeon Pennsylvania Hospital, 1856, and of Episcopal Hospital. Have made diseases of the eye special study as surgeon of these hospitals. Have had very large experience. Have had a large experience in operations on the eye. I suppose in Wills' Hospital have performed 180 to 200 operations on the eye. I attend there once every day for three months in each year. Don't recollect plaintiff as Josephine Kehoe; she entered under another name. When she came first, her left eye was in a staphylomatous condition; there was bulging of the cornea, and of the sclerotic. The whole front of the eye was opaque, and she had no useful vision. She had a perception of light from darkness. The right eye was in an inflamed condition; there was a slight opacity of it, and granular condition of the lids. She was admitted to the hospital for staphyloma, and for an operation for staphyloma, by the managers, and upon a writing signed by her in which the nature of the disease was specified. I told her there was no possibility of restoring vision, when she was admitted. I did not say that the operation would restore sight to that eye. I told her her eye would be well in ten days. There was no question of restoring sight; there was no possibility of it. I performed the operation for three reasons: 1. To remove deformity; 2. To allow an artificial eye; and, 3. To relieve the other eye, which was then suffering from sympathetic irritation. Dr. Marshall Paul, the resident surgeon, Dr. Harlan, the nurse Mrs. Creary, Mr. Smith the male nurse, were present at the operation. On removing the part, I found the iris, cornea, and lens all matted together. The plaintiff was often at the hospital afterwards to have her other eye treated. I never heard any expression of dissatisfaction from her.

Dr. Gross, sworn: Am Professor, Jefferson Medical College. In the case of leucoma there is no known remedy that can restore sight. In staphyloma, excision only will give relief to the patient; this in order to remedy the deformity, to prevent further protrusion, to relieve the lids from pain and inflammation, and for the sake of the other eye, on account of sympathetic inflammation. I should think the operation an entirely proper one, if the facts are as stated by Dr. Hall.

Cross-examined. I would not operate in leucoma. I cannot form an opinion of what was the condition of the eye from the statement of the plaintiff and her witnesses. According to their testimony, little, if anything, was the matter with the eye.

Reëxamined. From their statement that it was partly white and partly black, and covered the white and part of the sight, I should say it was staphyloma.

Dr. J. P. Morton, sworn: Physician. Graduated, University of Pennsylvania, fourteen years. Have given particular attention to diseases of the eye. There is no remedy known to medical science by which sight can be restored. Sometimes, in leucoma, it can be improved, when very recent, — not in this case; from the account, the disease was of long standing. I should have thought Dr. Hall would not have done his duty if he had not advised an operation in this case.

Cross-examined. I say so because the sound eye would have been otherwise injured.

Dr. J. M. Paul, sworn: Am a graduate of the University of Pennsylvania, two years in March. Was resident physician at Wills' Hospital at the time of the operation on plaintiff. I recollect her. She was admitted to be operated on for staphyloma. The whole cornea of her eye was opaque. Had no useful sight. Was present at the operation. She knew the operation was not to restore sight to that eye. Had conversations with her.

Mrs. Creary, sworn: Was nurse at Wills' Hospital in

1868. Was there three years. Recollect the admission of this patient. Had conversations with her. She said she was to wear a glass eye, and asked me if I knew what it would cost. I know staphyloma. She had staphyloma.

John Smith, sworn. Am nurse at hospital. Recollect the plaintiff came there to have her eye operated on for staphyloma. Have been at the hospital for some years, and am well acquainted with eye diseases. I know it was staphyloma she had. She talked with me before the operation, and knew the nature of the operation, that it was not to give sight to that eye. She spoke with me about a glass eye."

DOYLE *v.* N. Y. EYE AND EAR INFIRMARY AND DERBY.[1]

(Supreme Court Circuit, New York.)

DECLARATION. "Plaintiff applied at infirmary to be treated for an inflammation of an eye; that on one day some liquid was applied to his eye with a brush, when a violent inflammation set in which caused the loss of both eyes. This inflammation was a contagious ophthalmia, communicated by the application of the aforesaid brush, which had been used in treating other cases of contagious ophthalmia, and which, through the carelessness and negligence of the physician in charge of the infirmary, had been imperfectly cleaned.

Damages claimed $10,000.

Plea. Not guilty, and plaintiff was treated without fee.

Trial by jury. VAN BRUNT, J.

At the close of the plaintiff's testimony a motion was made, on behalf of the infirmary, to dismiss the complaint, on the ground that the services were given freely, without fee, and there was, therefore, no basis of contract; that no gross negligence had been shown; that the whole and sole duty of the infirmary was to select capable physicians and surgeons, and they were not shown to have neglected this;

[1] N. Y. Tribune, May, 1875.

and such testimony as had been given showed affirmatively that the appliances furnished were proper.

The court ruled that the nearest analogy was in the case of passengers on free passes on the railroads, and he believed that, in almost every State, the carrier had been held liable for accidents occurring through the negligence of its servants; he should therefore deny the motion. The motion was then renewed, on behalf of Dr. Derby, on the ground of want of proof of negligence, his counsel at the same time saying that he made it only as matter of duty to the court, hoping the court, by denying it, would admit their proof. The court denied it.

Proof was then put in for the defence. Royal Phelps, the president of the infirmary society, testified that the surgeons and assistant surgeons were selected by the surgical staff of the institution, and appointed by the board of trustees; that Dr. Derby came to them most highly recommended; that, after the case of Doyle was first made public, he personally made most careful inquiries; that he saw the boy and took down his statement, and came to the conclusion that there had been nothing wrong in the treatment of the boy at the infirmary. Drs. Bumstead, Roosa, and Agnew, and other physicians were called to show that violent inflammation, or ophthalmia of the eye, proceeding from catarrhal and other causes, were not distinguishable from purulent or contagious ophthalmia; that the treatment adopted by the doctor, to whom the boy went after leaving the infirmary, of hot fomentations, was almost certain to result, in such cases, disastrously, the true treatment being the laying open of the eyelids, cold applications, and the use of caustic. Dr. Joyce testified that, when the boy last came to the infirmary, his eyes seemed much inflamed, as from cold, and were in such a condition that Dr. Derby consulted with him about the case, and they advised the boy to come into the infirmary for treatment. The witness regarded the condition of the boy's eyes then as serious, though not necessarily dangerous.

His Honor, in charging the jury, told them that, however great the sympathy the boy's terrible misfortune might excite, they were not to be guided by that. They were to try a plain question of fact. Had Dr. Derby, after knowingly using a brush on an eye diseased with a certain contagion, used it afterwards, without proper precautions, on the eye of the plaintiff, thereby causing the loss of the boy's sight? Physicians in their practice gave no guaranty of cure, but they did guarantee that they would use their best abilities, and that they were acquainted with the ordinary appliances and means of their profession, in the cure of disease. It did not fall to every man to attain the highest proficiency in his profession, but a physician, in undertaking a case, must be supposed to know the ordinary appliances and literature of his profession, and devote his best skill to a cure. In this case there was no question of Dr. Derby's skill or knowledge. That was conceded. The question was, was he guilty of criminal negligence in using a brush affected with a poisonous virus of the kind named by the plaintiff, without taking those means to purify it which he knew would kill the virulence of the poison?

The boy, his Honor went on to say, had previously had diseases of the eyes, and came to the infirmary and was cured. On January 19, having a fresh attack, he came to the institution and was again treated, his treatment continuing to February 19, Monday. On that day the plaintiff says that he saw the brush, which was applied to his eyes, used on other persons. When his turn came, he being among the last, the application produced a new and entirely different sensation from what he had ever before felt, causing the water to gush from his eyes, and making him stagger into a dark hall, from which, after some little time, he went into the street. He says he was advised to be out in the open air. On his way home, at a time which must have been between three and four P. M., he met Dr. Hannan, who noticed that his eyes were unusually inflamed. He says that, on Tuesday, his right eye was closed, and his left began to

be affected; but Dr. Noyes, who saw him on Wednesday, when he came back to the infirmary, says that his right eye was not closed then. On Wednesday the boy was advised to come into the hospital, twelve dollars being named as the price of his board for two weeks. This, Dr. Noyes explained, was not made as a demand, but as a statement of what was expected from those who could afford it. The boy did not return, and that afternoon, as he and his family claim, — on Thursday as Dr. Hannan testified, from his memorandum of visits, — Dr. Hannan was called in. On that day the boy's eyes were in a fearful condition. They did not improve under the treatment adopted, and, on Monday, Dr. Noyes was called, and found the sight gone. Dr. Hannan says that Dr. Noyes approved his treatment, which Dr. Noyes denies; but Dr. Noyes admitted asking if the boy was affected with a contagious disease. The boy was not so affected, unless in his eyes, and Dr. Hannan claimed that he knew that the eyes were affected with this specific contagion, because the discharges were more greenish than usual.

On the part of the defence, Dr. Derby's answer was twofold: First, that there had been no patient suffering from this specific infection under treatment in the infirmary for some time. If he had no reason to know or suspect that the brush had been impregnated with the virus, he was not liable. The other answer was that the solution of nitrate of silver, of the strength which he used, must destroy the vitality of the specific poison referred to. To this, all the doctors called for the defence, except one, testified positively. That one stated that some physicians doubted this. The solutions used by Dr. Derby were 5, 10, 30, and 50 grains to the ounce. It was the universal testimony of the doctors that the communication of the specific poison, referred to, would cause no more pain than the application of any viscid liquid, and that its inflammatory effects would not be developed for at least six hours; while Dr. Hannan noticed the inflammation in two or three hours, and the plaintiff stated that the pain was continuous. Finally the experts stated

that there was no possibility of distinguishing ophthalmia arising from this poison from any other ophthalmia except by a history of the case.

If Dr. Derby was at fault, the judge said that he hardly knew what guide to give the jury as to damages. He warned them against taking his rulings on the law as any guide to his opinions on the facts. He doubted very much if, in any case, the infirmary could be held liable, but his mistakes could be corrected; theirs could not.

Verdict for defendant."

Courtney *v.* Henderson.

(Marine Court, New York.)

History. "The plaintiff was fifty-seven years of age, of good habits; had worked as foreman for ten years for Messrs. Pollard, up to last December, when he quit, with bad eyes; went to the eye infirmary, remained there from six to eight weeks, when he was induced, by a friend of the defendant, to leave the eye infirmary and put himself under the defendant's treatment. There had been a gradual improvement of his eyes from soon after he entered the eye infirmary until he left, and that improvement continued for two or three weeks after he left, — no doubt being the result of the treatment he received at the eye infirmary, — when they began to grow worse. He continued under the defendant's treatment until July (about three months), and the defendant performed an operation on his eyes, and put some kind of powder into them. When he first put himself under the defendant's treatment he could go there alone; he soon became so blind he had to be led there by a little boy. The plaintiff returned to the eye infirmary in July, but his vision was gone never to return. Dr. Agnew deposed that he has no doubt the plaintiff's eyes would have got well if he had remained in the eye infirmary, or been under good treatment outside. Dr. Agnew and Dr. Buck, both holding positions in the eye infirmary, the only physicians who testi-

fied in relation to the treatment, had no doubt that the plaintiff's eyes would have recovered under proper treatment.

They both gave a history of their practice in diseases of the eye, which is different from the defendant's practice, as testified to and shown by a card which is admitted to be his. The defendant offered to prove by a score of persons that they had had bad eyes, and been treated for them by the defendant, and got well or improved, which was ruled out by the court.[1] The defendant's counsel raised several points, but the second one is sufficient to state. '*That an error in judgment is not malpractice.*'

The court held that to be good law when applied to a man *skilled* in anatomy, surgery, or physics, but that it had no application in this case; that the defendant, knowing nothing of anatomy, surgery, or physics, could have no judgment in the matter. The law contemplated a judgment founded upon skill and knowledge in these sciences. That man who would hold himself out to the world as a doctor and an oculist, without a diploma, without any knowledge of these sciences, and under such false pretences obtain a patient, and commences tinkering with the most delicate of all the organs, the eye, must be reckless indeed. An error in judgment, of a man skilled in a particular calling, is not malpractice, unless it is a gross error. But error in judgment in a science, of a man unskilled in that science (if such a thing can be), is malpractice. In other words, a person attempting to practise, in physic or surgery, without first having obtained a knowledge of such science, is liable for all the damage that is the result of his practice. I have no doubt the plaintiff lost his vision through the defendant's treatment, and that the treatment was the result of ignorance on his part.

Judgment for the plaintiff, $500; allowance, &c., $12.00."

The ruling of the court in this case was eminently just. The possession of a diploma, or some other evidence of knowl-

[1] See the two cases of *Rex* v. *Long*, where the court permitted such witnesses to testify.

edge in anatomy, physiology, &c., should be required of every man who sets himself up as a doctor in medicine, to treat diseases or to act as an expert in a court of law, where questions of skill in medicine and surgery are in issue. The *rightful* possession of such diploma or certificate should be determined, by requiring the possessor to answer under oath, whether he had pursued such course of study as is usually prescribed by most medical schools, and whether he had been regularly examined by the authorities whose names are appended to such diploma or certificate of competency. Although this might not keep incompetent men entirely out of the profession, it could only result in good.[1]

[1] The powers now vested in city boards of health with regard to the registration of the fact and cause of death, as a preliminary to granting burial permits, ought to be made use of to shield the poor from the tender mercies of quack doctors. . . . . The Boston Board of Health in its last report cites the following certificate, to which a "doctress" affixed her mark: "This certifies that A beby boy died on the *born*day of Febberiy, 1876. Cause of death, '*Born.*'" Other "physicians," of both sexes, we presume, enumerated among the causes of death "cancrum," "canker and spasms," "lack of vetallity," "lack of villality," "daeth barne," "canker humer," "swallowing," "lung diess [disease]," "canther of the bowels," "scharletena," and "chituses." . . . . The report continues: "The question who is a physician, within the meaning of sect. 3 of chap. 21 of the Gen. Sts. still comes back to us, and ought to be settled. Is every person who holds himself or herself out as such, attending another in his last illness, a physician within the meaning of the statute? Are we to take the certificate of every *soi-disant* physician, and, upon that alone, give a permit for burial? Is he or she a physician who has no degree, no diploma; who has never studied medicine; who has had little or no experience; who cannot spell the name of a disease so that it can be read or understood, and who cannot write his or her name at all, but who simply makes a mark? If so, what weight shall we give to such certificates? Of what possible value are they?" — *The Nation, October* 12, 1876, p. 228.

CHAPTER XI.

ALLEGED MALPRACTICE IN OBSTETRIC CASES.

Rex *v.* Williamson.[1]

History and Evidence. "The defendant was indicted for the murder of Ann Delacroix, at the parish of St. James, Westminster; he was also charged with manslaughter by the coroner's inquisition.

The defendant was about seventy-five years of age. He was not a regularly educated accoucheur, but was a person who had been in the habit of acting as a man-midwife among the lower classes of people.

From the evidence of Elizabeth Garret, the nurse who waited upon Mrs. Delacroix, it appeared that Mrs. D. had been delivered by the defendant of a male child, on Friday, the 17th day of September, and that, on the Sunday following, an unusual appearance took place, which the medical witnesses stated to be a prolapsus uteri. This the defendant mistook for a remaining part of the placenta, which had not been brought away at the time of the delivery; he attempted to bring away the prolapsed uterus by force, and, in so doing, he lacerated the uterus, and tore asunder the mesentric artery. This caused the death of the patient, and it appeared from the testimony of a number of medical witnesses that there must have been great want of anatomical knowledge in the defendant.

The defendant in his defence said that he had acted according to the best of his judgment.

[1] 3 Carr. & P. 635.

Fourteen women were called as witnesses for the defence, all of whom had been delivered by the defendant at different times; but six only were examined, and they spoke to the kindness and attention that the defendant had displayed, and also to his skill, so far as they were able to judge.

The trial was held at Old Bailey, in 1807, Lord ELLENBOROUGH, C. J.

In summing up, the learned chief justice said: 'There has not been a particle of evidence adduced which goes to convict the defendant of the crime of murder; but still it is for you to consider whether the evidence goes so far as to make out a case of manslaughter. To substantiate that charge, the defendant must have been guilty of criminal misconduct, arising either from the grossest ignorance or the most criminal inattention. One or other of these is necessary to make him guilty of that criminal negligence and misconduct, which was essential to make out a case of manslaughter. It does not appear that, in this case, there was any want of attention on his part; and, from the evidence of the witnesses on his behalf, it appears that he had delivered many women, at different times, and from this he must have had some degree of skill. It would seem that, having placed himself in a dangerous situation, he became shocked and confounded. I think that he could not possibly have committed such mistakes in the exercise of his unclouded faculties; and I own that it appears to me that, if you find the prisoner guilty of manslaughter, it will tend to encompass a most important and anxious profession with such dangers as would deter reflecting men from entering into it.

Verdict, *Not guilty.*"

BOWMAN *v.* WOODS.[1]

"THE opinion of the court was given by GREENE, J.

The proceedings below were against Bowman for malpractice, as a physician, in a case of accouchement. Verdict for

[1] 1 Greene (Iowa), 441.

the plaintiff, and his damages assessed at fifty dollars. The bill of exceptions gives the substance of a Dr. Coffin's testimony, who, it appears, was called in as consulting physician about thirty-six hours after the delivery. At that time Dr. Coffin states, that the after-birth was not removed, and the patient was greatly prostrated by the severity of the labor and loss of blood; that she was also suffering from a distension of the bladder, which had not been evacuated since parturition. He gave it as his opinion that the placenta, and the distended state of the bladder, should have been removed at a much earlier period, and that such delay would be likely to produce puerperal fever. Several other physicians, as witnesses, concurred in Dr. C.'s view of the practice.

The defendant then offered to prove that he was a *botanic* physician, and that, according to the botanic system of practice and medicine, it is considered *improper* to remove the placenta, and that it should be permitted to remain till expelled by efforts of nature. But the proof of these facts being objected to, was ruled out by the court. In this we think there is error. As yet there is no particular system of medicine established, or favored, by the laws of Iowa; and as no system is upheld, none is prohibited.

The regular, the botanic, the homœopathic, the hydropathic, and other modes of treating disease, are alike unprohibited; and each receives more or less favor and patronage from the people.

Though the regular system has been advancing, as a science, for centuries, aided by research and experience, by experience and skill, still the law regards it with no partiality or distinguishing favor; nor is it recognized as the exclusive standard or test by which the other systems are to be adjudged. The evidence of the experienced practitioner of either system is equally admissible in giving opinions upon questions of medical skill. But, in the question before us, the objection does nor appear to be the disqualification or skill of the witnesses, but rather the facts which the defendant proposed proving by them. In these facts we can see

nothing irrelevant or inadmissible; and, as matter of defence to the jury, the defendant was entitled to the benefit of them. A person professing to follow one system of medical treatment cannot be expected by his employer to practise any other. While the regular physician is expected to follow the rules of the old school, in the art of curing, the botanic physician must be equally expected to adhere to his adopted method. But, on the part of every medical practitioner, the law implies an undertaking that he will use an ordinary degree of care and skill in medical operations, and he is unquestionably liable for gross carelessness or unskilfulness in the management of his patients; and still the person who employs a botanic practitioner has no right to expect the same kind of treatment, or the same kind of medicine, that a regular physician would administer. The law does not require a man to accomplish more than he undertakes, nor in a different manner from what he professes. Therefore, in this case, if the defendant below could show that he was employed as a botanic physician, and that he performed the accouchement with ordinary skill and care, in accordance with the system he professed to follow, we should regard it as a legal defence. It should show a full compliance with his profession and undertaking, and, if injury resulted from it to the plaintiff, he could blame no one but himself. Story, in his work on Bailments, § 435, says: 'But even where the particular business or employment requires skill, if the bailee is known not to possess it, or he does not exercise the particular art or employment to which it belongs, and he makes no pretension to skill in it; then, if the bailor, with full notice, trusts him with the undertaking, the bailee is bound only for a reasonable exercise of the skill which he professes, or of the judgment which he can employ; and if any loss ensue from want of due skill, he is not chargeable. Thus' (to put a case borrowed from the Mohammedan law), 'if a person will knowingly employ a common mat maker to weave or embroider a fine carpet, he may impute the bad workmanship to his own folly. So if a man, having a disease in his

eyes, should employ a farrier to cure the disease, and he should lose his sight by the remedies prescribed in such cases for horses, he certainly would have no cause for complaint.'

Judge Story then goes on to state, that, in all such cases, the employer ought properly to attribute the loss or injury to his own negligence and mismanagement. The case of the *Commonwealth* v. *Thompson*, 6 Mass. 134, exhibits a revolting case of malpractice, in which lobelia was administered to such indiscriminate excess as to produce death. Still it was held that, if a medical pretender administers medicine to his patient, with an honest intention and expectation of cure, but which causes death, the party prescribing cannot be adjudged guilty ; and that ' there is no law which prohibits any man from prescribing for a sick person, with his consent, if he honestly intends to cure him by his prescription.'

The people are free to select from the various classes of medical men, who are accountable to their employers for all injuries resulting from a want of ordinary diligence and skill in their respective systems of treating diseases. It is to be lamented that so many of our citizens are disposed to trust health and life to novices and empirics, to new nostrums and methods of treatment. But these are evils which courts of justice possess no adequate power to remedy. Enlightened public opinion and judicious legislation may do much to discountenance quackery and advance medical science.

The only other error assigned in this case, which we deem it necessary to notice, is in relation to the admission of med ical books as evidence. It appears that the defendant offered to introduce certain medical books, which witnesses had declared as standard works on botanic medicine, and from which they claimed to have derived much of their professional knowledge, but, on objection, the court excluded them. The authorities on this point are not uniform ; but the district judge decided in conformity to the prevailing decisions of at least the English courts. In the case of *Collier* v. *Simpson*, 5 C. & Payne's N. P. R. 73, it was decided that medical books are not admissible in evidence, though profes-

sional witnesses may be asked the grounds of their judgment and opinion, which might in some degree be founded on these books, as a part of their knowledge.

Judge Abbot, in the trial of Donal, for poisoning, refused an appeal to the works of Thénard, and said, 'We cannot take the fact from any publication; we cannot take the fact as related by any stranger.' But in the trial of Spencer Cooper the court permitted medical authorities to be read; Guy's Forensic Medicine, 11; and Dr. Beck, in his excellent work on Medical Jurisprudence, vol. ii. page 666, states that in this country an objection has never been made to the introduction of authority, or observation of others, as testimony, by medical men. In this we think the author mistaken, for an appeal to medical authorities has been disallowed by some of the courts of this country; though physicians, when testifying, are permitted to refer to medical authors, and to quote authors, we can see no reason why they may not read the views and opinions of distinguished authors. The opinion of an author as contained in his works we regard as better evidence than the mere statement of those opinions by a witness, who testifies as to his recollection of them from former reading. Is not the latter secondary to the former? On the whole we think it the safer rule to admit standard medical books as evidence of the author's opinions upon questions of medical skill or practice involved in a trial. This rule appears to us the most accordant with well established principles of evidence.

Judgment reversed."

This decision lays down what we think should be the law in every case. What right have patients, with the means of arriving at more correct ideas in respect to the different methods of practice, to ask that *regular* physicians shall assist them to prove that the methods of treatment followed by the "Eclectic," "Botanic," "Physio-Medical," "Electrical," "Thompsonian," "Homœopath," "Reformed," "Indian doctor," Cancer doctor," "Indianopathist," "Clairvoyant doctor," *et id genus omne*, are malpractice? Or what

right have they to ask that the treatment they solicited shall be conformable to the rules of *legitimate* medicine?

What is meant by the terms "regular" and "legitimate," used in this connection? A "regular" physician is one who has made anatomy, physiology, and hygiene the foundation upon which to build, by the exercise of common sense (and the more of this latter, the more skilful the physician), an enlightened and rational practice; selecting from the whole realm of nature, animal, vegetable, and mineral remedies which have been found beneficial in the treatment of disease, repudiating the term "Allopathic" as being false in theory and false in application. The practice of these doctrines is "legitimate medicine," handed down from the times of Hippocrates, — a true apostolic succession, as grand in its results to man's physical welfare as that succession in the moral world has been to his spiritual welfare.

Grannis *v.* Branden.[1]

"Mitchell, C. J. (After stating the case.) The first objection on which the present motion is grounded is, that no evidence ought to have been admitted on the trial, relating to the wounds inflicted by the defendant upon the plaintiff's wife, because the only point in issue between the parties was, whether the defendant had neglected to perform his professional duty. This objection proceeds from a misconception of the cause of action.

The *gravamen* is the defendant's ignorance, negligence, and want of skill; which may be as clearly evinced by misfeasance as by nonfeasance; by positive acts as well as by negligent ones. The declaration clearly shows that the action is founded on both grounds. The defendant is charged not only with ignorance and negligence, in permitting the plaintiff's wife to remain in great distress for two days, but with an attempt to deliver her in an unskilful manner, pursuing a course of practice not warranted by, and contrary to, the established rules of proceeding in similar cases.

[1] 5 Day, 260.

The plaintiffs sustained damage in both ways: that is to say, the plaintiff's wife endured great pain, and was in imminent hazard of her life from the omission and negligence of the defendant; and she also received irreparable injury and lasting wounds from his unskilful practice. If, then, the whole declaration, taken together, contains several distinct allegations, all going to constitute the *gravamen*, or one single cause of action, all being parts of the principal charge, there can be no doubt that all these allegations may be proved, as pertinent to the issue. To warrant the admission of such proof it is sufficient if such allegations appear in the declaration. The *allegata et probata* must agree. This is the only criterion by which the court can determine as to the relevancy of the testimony offered on the trial. If the facts alleged in the declaration constitute two or more distinct causes of action, which cannot be joined, the defendant should seek redress by motion in arrest.

Again, it is further objected that the several particular circumstances attending the transaction in question, ought to have been explicitly and distinctly set forth in the declaration to warrant the admission of the evidence; or that all the facts intended to be proved on the trial should have been stated in the declaration.

But this is not necessary, according to the rules and precedents in analogous cases. In actions of assault and battery a general statement is sufficient to let in proof of particular acts, and all the circumstances attending the transaction; and there is sufficient precision if the cause of action be so defined that the party may plead the judgment in bar of another suit for the same cause.

It is apparent that the allegations relating to the wounds received by the plaintiff's wife were introduced for the purpose of laying a foundation for a claim to damages, either as a part of the cause of action or by way of aggravation. In either case the judgment would be a good bar to another action brought for the same cause.

Besides, there are many cases where the law, to preserve

the chastity of the record, admits generality in the statement of facts; although such general mode of declaring would not be strictly conformable to technical rules in other cases.

In this case there is no necessity of resorting to this principle; for the fact proved on the trial was sufficiently stated in the declaration, to warrant the admission of proof of all the attendant circumstances.

It is also claimed that the court erred in admitting evidence to show that the defendant falsely, or improperly, pretended that the plaintiff's wife was infected with the venereal disease. This was proper evidence for the consideration of the jury, if introduced for the purpose of showing that the defendant was ignorant of the true state of the patient's case. And if the defendant himself, who might be supposed to make the best of his case, had alleged the existence of such a disease as the only cause of his ill success, the plaintiff, by disproving this charge, might furnish good ground for the jury to infer that the want of success was attributable solely to the ignorance or misconduct of the defendant. For this purpose, alone, the evidence was admitted; as the court charged the jury that it was not to be considered as enhancing the damages. In this view the evidence was proper.

The next objection relates to the admission of evidence to show the general character of the defendant, and that he was not a regularly educated physician and surgeon. Such evidence would have been improper if it had been offered to increase the amount of damages. In such case it would have been considered as setting up a new and distinct cause of action inconsistent with the allegation in the declaration. But the defendant, in the first place, introduced evidence of his general character, to raise a presumption in favor of his skill and knowledge in his profession. It then became necessary, and it was competent, for the plaintiffs to rebut this proof. This is analogous to established principles of law. Whenever the character of a party is not immediately in issue, and cannot be directly impeached in the first instance,

yet, if he himself first introduces evidence in support of it, the other party shall be permitted to rebut the evidence, by impeaching his general character; the party himself having put it in issue. The defendant himself laid the foundation of this evidence by first introducing witnesses in support of his character. Whether the evidence was properly admitted is not now the question.

It is also insisted that the court, on the circuit, ought to have compelled Dr. Gilbert, a witness, to answer the questions put to him on the trial of the motion in arrest, relating to certain improper conversations between him and one of the jurors, while the jury had the cause under consideration. It ought to be remarked that, before any particular questions were suggested, a general inquiry appears to have been made of the witness, relating to the subject matter of the motion, who replied, 'that he knew nothing of any conversation, other than was stated in the motion, to have been held between himself and one Read, a juror.' The only conversation stated in the motion in arrest, between the witness and Read, was one in which both took a part, and consisted of certain remarks and assertions made by the witness, to which the juror barely replied or assented. Hence, whatever may have been the conversation, it is evident that the witness is a partaker, or, at least, equally concerned with the juror; especially, as the witness was the instigator and the prime mover of the conversation.

This answer contains, first, any declaration or conversation by any other juror than Read, in the presence or hearing of the witness, relating to the cause. And, secondly, a denial of any declaration whatever, made even by Read, in his presence or hearing, except such as had been made by way of reply to his own remarks, and in concurrence with them, because no other declaration or conversation was detailed in the motion; and the witness had, by his general answer, limited his knowledge of any conversation to that which was stated in the motion to have been held between him and Read. In that conversation it appears, from what has al-

ready been stated, that he must have been as much implicated as the juror; and he refused to disclose it because it was of such a nature that he could not testify to any part of of it without criminating himself. The general answer of the witness embraced all the particular questions afterwards proposed, and the court was not bound to require the answer to be repeated.

The only remaining question relates to the validity of the objection of the witness (Dr. Gilbert) to disclose the conversation which took place between him and the juror. The witness assumed the right of determining whether the disclosure would criminate himself. If he is to be considered the sole judge of the effect of his testimony, as it relates to himself, it is immaterial whether he decide the question right or wrong. The court, on this principle, can inquire no further. If he testifies that his disclosures will expose him to be prosecuted criminally, it is conclusive. The court cannot compel a witness against his will to disclose facts which will expose him to a criminal prosecution. *Nemo tenetur seipsum accusare.* But the application of this principle in every case, so as to preserve the rights of the party, the prerogative of the court, and the privilege of the witness, is attended with some difficulty. On the one hand it may be said that the witness has no right to deprive the party of the benefit of his testimony, by any false conceit of his own, or an incorrect opinion of the law; and, on the other hand, it may be contended that, if the court should claim, exclusively, the right to determine, in all cases, they must first compel the witness to disclose his answer before they can decide the question; which would effectually deprive him of the protection which the law intended to afford him. The witness alone can know what his answer must be, and he only can determine how it may affect or expose him. Although the question may appear to the court to be indifferent, yet the witness may be sensible that it would supply a link in the chain which would lead to a conviction for a crime. Such was the question to the Roman Catholic priest, reported in the books.

He alone could see how an answer, agreeable to the truth, would subject him to penalties, and the court had no *data* by which to decide, without first compelling the witness to surrender his privilege, and furnish the evidence for his own conviction. There is a difficulty in establishing a general rule which will effectually preserve the rights of the witness, and, at the same time, protect the party against a corrupt design of the witness to hide behind the shield of his privilege facts important to him, and such as would not implicate the witness.

But in this case there is no necessity of deciding the question. It appears, clearly, that an affirmative answer would have implicated the witness in a crime, and that a disclosure of any part of the conversation stated to have been held with the juror, would have fixed upon him the crime of embracery. The conversation with Read, as stated in the motion, consisted entirely of remarks made by the witness respecting the nature of the cause, and the nature and character of the evidence offered on the trial, or the principles on which the jury ought to decide the case under their consideration. The remarks thus made were obviously calculated to influence the juror in favor of one party and against the other. Indeed, the motion in arrest is grounded upon the undue influence or bias which the conversation was calculated to excite in the mind of the juror. This amounts to embracery, which consists in an attempt to influence a jury corruptly; whether this be done by persuasion or bribery is immaterial. It is acknowledged to be a crime of deep hue, polluting and corrupting the source and fountain of justice; and, if the facts stated in the motion could be proved, both the witness and juror would be liable to punishment. When the witness, in his answer to the question proposed to him, limited his knowledge, respecting the conversation with the juror, to the facts stated in the motion, it must have been perfectly obvious that he could not disclose the conversation, nor any part of it, without implicating himself in the crime of embracery. It became the duty of the court, therefore,

to protect the witness in the enjoyment of a privilege which he had a right to claim, and which the law secures to him, upon the soundest principles of policy and the plainest dictates of reason.

I am of opinion, therefore, that a new trial ought not to be granted.

In this opinion the other judges severally concurred, excepting INGERSOLL, J., who, having been of counsel in the cause, did not judge. *New trial not to be granted.*"

CHAPTER XII.

ALLEGED MALPRACTICE IN VENESECTION, ETC.

HANCKE *v.* HOOPER.[1]

"TINDAL, C. J. The declaration stated that the plaintiff, on the 24th of June, 1834, at the request of the defendant, retained and employed him, he then being a surgeon, to perform a certain operation, to wit, to bleed him in the arm, for reasonable reward; that the defendant accepted such retainer and employment, and thereupon it became his duty to perform the operation in a careful, skilful, and proper manner; and although he did, by a certain servant of his, perform the operation, yet he, the defendant, not regarding, &c., but wrongfully intending, &c., did not, nor would perform the operation in a careful, skilful, and proper manner, but wholly refused and neglected so to do; and, on the contrary, by his said servant performed the operation in so careless, unskilful, negligent, and improper a manner, that, by and through the mere carelessness, &c., of the defendant, by his said servant, the arm of the plaintiff was greatly hurt, bruised, wounded, swelled, and discolored, and the plaintiff lost a great, unnecessary, and improper quantity of blood, and was sick, &c., and suffered great pain, &c., and was prevented from attending to his business, and was obliged to expend £30 in endeavoring to get cured.

Plea. Not guilty.

It appeared that, about nine in the morning of the 24th of June, the plaintiff, who was a whitesmith, went into the shop of the defendant, who was a surgeon in the London

[1] 7 Carr. & P. 81.

Road, and asked to be bled. Two of the defendant's apprentices were in the shop, and he himself was engaged in a back parlor adjoining. The plaintiff did not inquire for the defendant, but told the young men that he had a disease in his head for which he had been bled before and had found relief from it. Upon this, after a lapse of two or three minutes, he was bled by the senior apprentice in the presence of the other; and, while the operation was going on, observing the blood flow rather more rapidly than usual, they called for the defendant, who came in and told them when to stop, and himself tied up the plaintiff's arm; and, ascertaining that he had some distance to walk, and the weather being hot, bandaged it rather tightly; and, on the plaintiff's complaining, told him that, if he found it too tight when he got home, he might loosen it. It appeared that the apprentice who bled the plaintiff had often bled patients before; he had been two years with the defendant, and previously had been with surgeons of eminence at Brighton, and attended anatomical lectures, and seen hospital practice. The bleeding took place in what is called the basilic vein, where it appeared from an old cicatrix that the plaintiff had been bled before. Under this vein there is an artery, and one of two surgeons, who were called on the part of the plaintiff, stated it was improper to bleed in that vein; but he gave no other reason for his statement than the danger there might be of touching a tendon if the vein was not skilfully rolled over it. He said that, in his opinion, the appearances described would not have resulted if the operation had not been unskilfully performed.

On the part of the defendant, Mr. Key, Mr. Callaway, and Mr. Samuel Cooper stated, that the appearances were all consistent with the skilful and proper performance of the operation, and, even supposing that the filament of a nerve had been injured, it was an accident which might occur to the best surgeon, and did not show the slightest want of skill. One of the surgeons called on the part of the plaintiff also gave similar evidence. The appearances described

were considerable swelling and discoloration of the arm, and some witnesses swore that the plaintiff was confined for a month, and not able to go to his work in consequence.

Talfourd, Serjt., for the plaintiff, contended that a surgeon was not only to bring to his profession a competent degree of personal skill, but also to avoid introducing into his business young persons not of competent skill. He submitted that it was very doubtful whether the operation ought to have been performed at all; and that the defendant ought not to be exonerated from blame, as he had allowed so delicate an operation to be performed by a person who had not completed his education.

Wilde, Serjt., for the defendant. I admit that a patient is entitled to ordinary skill and care; but it is monstrous to say that a medical man is to insure the constitution of his patient in all cases. The plaintiff must make out want of skill, and he has failed in doing so.

Tindal, C. J., in summing up. The defendant is responsible for the act of his apprentice; therefore the question is, whether you think the injury which the plaintiff has sustained is attributable to a want of proper skill on the part of the young man, or to some accident. A surgeon does not become an actual insurer; he is only bound to display sufficient skill and knowledge of his profession. If, from some accident, or some variation in the frame of a particular individual, an injury happens, it is not a fault in the medical man. It does not appear that the plaintiff consulted the defendant as to the propriety of bleeding him; he took that upon himself, and only required the manual operation to be performed. The plaintiff must show that the injury was attributable to want of skill; you are not to infer it. If there were no indications in the plaintiff's appearance that bleeding would be improper, the defendant would not be liable for the bleeding not effecting the same result as at other times, because it might depend on the constitution of the plaintiff. His lordship stated the substance of the evidence, and said: The question is, whether you think the plaintiff has proved that the

injury resulted from the inexperience or want of previous knowledge on the part of the defendant's young man; if you do not, you will find your verdict for the defendant; if you do, you will find your verdict for the plaintiff, and give him such reasonable damages as you think him entitled to under all the circumstances. *Verdict for the defendant.*"

INTERSTITIAL ABSORPTION FROM INFLAMMATORY SOFTENING. ALLEGED TO BE FRACTURE OF NECK OF FEMUR.

HAIRE *v.* REESE.[1]

CHARGE OF THE COURT.

"THAYER, J. The plaintiff has brought this action against the defendant, Dr. Reese, for alleged malpractice as a physician and surgeon. The grounds upon which he alleges he is entitled to sustain this action for damages are, that the defendant treated him unskilfully for his injuries, and that he did not give that diligent care and attention to his case which it was incumbent on him to extend to him, and which he had a right to expect. That is the question which you are to determine by your verdict.

The history of the case appears from the evidence which is before you to be this: On the 2d of February, 1869, the plaintiff, who is by trade a house-painter, was engaged in painting the outside of the House of Refuge, in this city, when the jack upon which he was standing accidentally gave way and he was precipitated to the ground, a distance of twenty-eight feet, his body striking violently against a fence in its fall. The defendant, who is the attending physician of the institution, was immediately sent for, and he came promptly to his assistance. As soon as he arrived he proceeded to take up the arteries in the head which had been cut by the fall, and to stanch the bleeding of his wounds.

[1] 7 Philadelphia (Pa.), 138.

When that was completed he proceeded to examine the plaintiff's hip, in which he was suffering great pain. The plaintiff groaned with pain under the examination, and the doctor thereupon advised that he should be removed at once to his own home, where he could be better provided for, and where a more thorough examination could, with greater facility and less pain to the patient, be made. At the special request of the plaintiff he consented to attend him, and went in advance of the plaintiff to his home, in a distant part of the city, in order to prepare his family for the bad news which awaited them, and to make proper preparations for the reception of the patient. When the latter arrived he was carried, by the doctor's directions, into the sitting room and laid carefully upon a bed. The doctor then etherized him in order to enable him to endure the examination to which he was about to subject him. He then proceeded to make a thorough examination of the injured parts, and, contrary to his own expectations, as he says, found, after making this critical examination, that there was neither fracture nor dislocation of the bones. After administering an anodyne to him, and directing an anodyne liniment for the hip, he left him for the night. The next day he visited him again and made another careful examination of the hip, according to the doctor's testimony, but again found no evidences of fracture or dislocation. He prescribed liniments and anodynes, and directed him to be kept in a quiet condition. The doctor continued to visit him daily for a considerable time, making twenty-one visits in all. On the 24th of February, about three weeks after the accident, at Dr. Reese's suggestion, Dr. Agnew was called in to a consultation. He came and made a thorough examination of the injured part. He resorted to every means known to surgery to ascertain if there had been a fracture. You will recollect the details of that examination given you by Dr. Agnew himself. The patient was first examined in a recumbent position. The parts were carefully manipulated and turned about, but there was no crepitation, — that is, no sound of grating of bones, — which is usually detected im-

mediately by the practised ear of a skilful surgeon where a fracture has occurred. The limbs were carefully measured and compared with each other; measurements of various kinds, and in different directions, were made, to ascertain whether the injured leg had undergone any shortening. The patient was then placed in an erect posture and again examined. His leg was swung backward and forward. In short, after subjecting the limb to all the tests usually applied in such cases, Dr. Agnew, as he has testified, was convinced that there was neither fracture nor dislocation. Dr. Agnew has stated in his testimony, in view of this thorough examination to which he subjected the plaintiff, that if there then existed a fracture, it could not be discovered by any human means. Dr. Reese made his last visit to the plaintiff on the 10th of May. For the professional service which he rendered he has never received a dollar. On or about the 6th of August following, the plaintiff called upon Dr. Agnew at his office. Dr. Agnew then observed that there had been some shortening of the leg. When asked by Dr. Agnew when that shortening had commenced, he replied that 'it was after he had got up to go about on crutches.' Dr. Agnew advised him to get a high-heeled shoe, and to dispense with the crutches. He then went away. He rewarded Dr. Agnew for his services by bringing a suit against him also. Subsequently he went to see Dr. Gross, at the Jefferson College clinic, who prescribed an ointment for his leg; whereupon the plaintiff accused him of having poisoned him. He went also to see Dr. Duffie, who advised him to throw away his crutches and to get a high heel to his shoe. While Dr. Reese was attending him he consulted other persons without informing him of it, and applied to his leg various nostrums which they recommended. He now charges Dr. Reese with the shortening of his leg, and seeks to make him responsible for it. You are to decide whether his charge is just and true or not.

Gentlemen of the jury, — Before I refer to the evidence in the cause, I will direct your attention to certain principles of law which are applicable to such investigations.

The implied contract of a surgeon or a physician who attends a patient is, not that he will certainly effect a cure, but that he will use all known and reasonable means to accomplish that object, and that he will attend his patient carefully and diligently. His relation to his patient implies that he possesses, and will employ, in the treatment of the case, such reasonable skill and diligence as are ordinarily exercised in his profession by thoroughly educated surgeons or physicians; and, in judging of the degree of skill which he contracts to bring to the service of his patient, regard is to be had to the advanced state of the profession at the time. The defendant in this case was bound to use reasonable skill and diligence to effect a cure; and reasonable skill and diligence means such skill and diligence as educated and faithful surgeons or physicians ordinarily employ.

No presumption of the absence of proper skill and attention arises from the mere fact that the patient does not recover, or that a complete cure is not effected. God forbid that the law should apply any rule so rigorous and unjust as that to the relation and responsibilities arising out of this noble and humane profession! The medical man who is called to attend a patient undertakes to possess such knowledge and skill as are usually and commonly possessed by educated physicians, and to apply that skill and knowledge with all due diligence and care for the benefit and advantage of the patient. If his performance comes up to that standard, he has discharged his duty and is not responsible for results. On the part of the patient, it is his duty to conform to the necessary prescriptions and treatment, if they be such as a surgeon or physician of ordinary skill and care would adopt or sanction; and if he will not, or under the pressure of pain cannot, the surgeon or physician is not responsible for injury resulting therefrom.

When malpractice, or want of skill or proper attention, is charged against a physician or surgeon, the burden of proving it lies upon the person who alleges it. In the absence of satisfactory proof to establish such a charge, the presump-

tion is that he was competent for the task which he had undertaken, and did his duty to the best of his ability. This is the rule of common sense, and the rule of law upon this subject. The burden of proof, therefore, in this case, as in all similar cases, is upon the plaintiff. You are not to rush to conclusions detrimental to the reputation and interests of the defendant without competent proof. You are to decide the case by the evidence. You are sworn to give a true verdict according to the evidence. Your consciences must be satisfied by the evidence that the plaintiff's case is proved, before you can be justified in finding a verdict against the defendant. And I will add, that it is your duty to weigh the evidence carefully, and to decide the cause according to the weight of the evidence.

Having thus pointed out the rules of law which are applicable to this inquiry, I will now proceed to make some references to the evidence which has been given, reminding you, at the same time, that you are the exclusive judges of the facts, and with you must ultimately rest the responsibility of deciding the cause. The charge made by the plaintiff, as he has attempted to maintain it by the evidence, is that the defendant mistook the nature of his injury. He says that his thigh-bone was fractured, whereas the defendant assured him that it was not, and treated him as if it were not, the consequence of which was, as he alleges, the shortening of his leg. The proof upon which he relies to show that there was a fracture is, in the first place, the evidence of certain witnesses; and, in the second place, he says that the fracture is proved by the shortening itself. Now, it is apparent from the testimony of all the surgeons who have been examined, — as well the plaintiff's as the defendant's witnesses, — that in consequence of an injury such as the plaintiff received, shortening of the limb may result either from a fracture of the bone, or from what is technically called *interstitial absorption*, — that is to say, the absorption of the extremity or neck of the femur, or thigh-bone, — a result frequently arising from a violent contusion. If you believe the leg was

shortened, then it will be proper for you to inquire whether it was the result of an actual fracture, or of an absorption taking place in consequence of a contusion; because you will observe that, unless there was a fracture, the plaintiff's allegation of mistake or neglect on the part of the defendant in not ascertaining that fact is not made out. Let us, therefore, examine the evidence upon this point. The plaintiff himself says in his testimony very positively that the bone was fractured. Now it is for you to say how much weight is to be given to that statement, in view of the other testimony in the case. You will consider whether he could probably determine that point with as much certainty as the surgeons who professionally examined the limb. You will consider whether his assertion upon this point is of as much value as the testimony of the surgical experts who examined him. To me it appears a question much more difficult to be decided with certainty by the patient himself, than by those who, from long experience and education, are accustomed to ascertain such facts by the scientific tests which they are accustomed to resort to in order to determine it. But the value of his testimony I leave entirely to you.

The first witness he called upon this point, to sustain his own assertion, was Dr. John Hirst, who is a graduate of the College of Surgeons, of Edinburgh. He testified that he examined the plaintiff about two years after the accident occurred. He told him that he could do nothing for him; that he had no doubt that his case had been treated correctly, from the character of the gentleman who had attended him. He casually expressed the opinion, he says, that the leg had been fractured in the neck of the thigh-bone, and he formed that opinion, he says, from the shortening of the limb. According to his testimony he based his opinion on that circumstance and what he had heard of the history of the case; he did not measure the limb. He further said that a concussion may induce disease of the articulating head of the thigh-bone, resulting in interstitial absorption; and that will occasion a shortening of the limb. He said that he

thought the shortening was owing either to fracture or interstitial absorption. As a general rule, the limb would be very soon shortened by a fracture after the injury was received, but if shortened by absorption the shortening would come on gradually. He also said that if he examined a patient and found that there was neither crepitation, inversion of the limb, nor shortening, he could not say there had been a fracture. Dr. Hirst does not appear, by the evidence, to have examined the plaintiff by means of the usual scientific tests described by the other surgeons. He looked at it two years after the accident and gave a casual opinion, as he himself expresses it, founded upon a comparison, by the eye, of one leg with the other, and upon what he had heard of the case. That appears to have been all the examination he gave it. It is for you to settle the weight and value of his testimony on this point.

The next witness called by the plaintiff was Moses Stevenson, who says he graduated in medicine in 1870, after studying two years. He says he examined the plaintiff's leg last winter, and believes that it had been fractured. I do not consider it worth while to dwell upon the testimony of this witness. You will recollect the exhibition which he made upon being cross-examined, saying, among other things, that 'the head of the femur may be *crepitated* by absorption.' In my judgment his testimony is not worth considering, and was in the highest degree discreditable to himself. I dismiss him, therefore, without further comment.

The next witness called by the plaintiff was Dr. Joseph D. Scoles, whose testimony appeared to me both clear and candid. He says that he formed the opinion that the hip-bone had received an injury which occasioned the shortening of the limb; that this shortening may have been caused either by fracture or absorption, and that it is impossible for him to say which.

I have now given the substance of the whole of the plaintiff's testimony upon this subject of fracture or no fracture. On the part of the defendant, Dr. Reese (the defendant)

testified in great detail to the nature of the examination to which he had subjected the plaintiff immediately after the happening of the accident. I will not take up your time by going over it, for I am sure you will recall it. And after completing that examination, which appears by his own statement to have been very carefully and deliberately made, he came to the conclusion that there had been neither fracture nor dislocation.

Dr. D. H. Agnew, the distinguished professor of operative surgery in the University of Pennsylvania, testified that he examined the plaintiff's limb about three weeks after the accident, and applied every test known to surgical practice to ascertain whether there had been fracture, and was clearly of opinion that there was neither fracture nor dislocation. You will remember the description he gave you, at considerable length, of that examination, and of the various methods resorted to by him to determine the fact. He said that, if there was a fracture at that time, it could not be discovered by any human means. He says, moreover, after listening to the details of the treatment of the patient by Dr. Reese, that it was in all respects skilful and proper.

Dr. Gross, the eminent professor of surgery in Jefferson College, and a gentleman of great experience in the profession, testifies that he examined the patient at the close of a clinic, and came to the conclusion that the injury to the leg was the result of severe contusion. He further says that if the bone had been fractured the shortening of the limb would, beyond all question, have taken place within twelve or fifteen days after the accident. He also corroborated, to the fullest extent, the opinion of Dr. Agnew in regard to the skilful and judicious character of the treatment given to the plaintiff by Dr. Reese.

Dr. Duffie, also called as a witness by the defendant, and having also examined the plaintiff some time since, was distinctly of opinion that it was a case of absorption of the thigh-bone, a result which, he says, no remedies known to surgery can cure.

Dr. John H. Brinton, a well known surgeon of long and large experience, testified, after hearing at length the treatment to which the plaintiff had been subjected by the defendant, that, in his opinion, it was perfectly correct and judicious, and said he knew of no other treatment for such a case.

The testimony of Dr. R. J. Levis was to the same effect. He says that the treatment was skilful and proper. All the surgeons who were examined agree that, if there was no fracture, the treatment was perfectly proper; and they all agree that the only evidence of fracture was the shortening of the limb; and that shortening ensues with equal uniformity from absorption — the consequence of contusion — as from fracture, the only difference being that, in the former case, it comes on at a much later period in the history of the case than in the latter. You have, then, on the one side, the positive statement of the plaintiff and the opinion of Dr. Hirst, founded upon an examination certainly not critical in its character, made two years after the accident, and upon what he had heard about the case. You have, upon the other, the opinions of Dr. Agnew, Dr. Gross, Dr. Brinton, Dr. Duffie, Dr. Packard, Dr. Levis, and Dr. Reese, the defendant.

You have also the important fact that there is no evidence that any shortening took place for a considerable period after the accident. Dr. Agnew is positive that there was no shortening when he first examined the plaintiff, about three weeks after the accident, and that he did not observe that it had taken place until the plaintiff came to his office, in August, about six months after the accident.

You ought to decide the case according to the weight of the evidence. If you are of the opinion that the plaintiff's leg was not fractured, I do not see that there is any evidence that the case was not properly treated by Dr. Reese. I have a right to say, and I conceive it to be my duty in this case to say, that I see no satisfactory evidence that the treatment of Dr. Reese was not, in all respects, skilful, wise, humane,

and proper. But I leave all the evidence to you, and you will decide for yourselves.

If, after looking over the whole case and weighing all the evidence and applying the rules of law regulating his responsibility, to which I referred in the commencement of my charge, you conscientiously come to the conclusion that the defendant was guilty of any negligence, or want of ordinary care and diligence resulting in injury to the plaintiff, of course you will not hesitate to say so by your verdict. But if, on the contrary, you come to the conclusion that the plaintiff's complaint is altogether unfounded, then it concerns not only the interests of the parties in the present cause, and not only the interests of public justice, but also the established medical fame of this city (a fame established by many examples of men great and distinguished in this profession, who have here lived, and labored, and died), that you put an end, so far as you can, to experiments by unjustifiable lawsuits against skilful, attentive, and humane physicians.

Verdict for the defendant."

In the above able charge the court reviews the whole ground. He does what is too frequently left to the jury to do, — he separates the expert from the eminently *non*-expert testimony. He does not permit that "the head of the femur may be *crepitated* by absorption" to go to the jury as sound "expert" evidence, but, after elucidating the scientific portion of the defence, he gives a clear expression of his own convictions, from the testimony given, and sends the case, freed from false issues, to the jury.

At a meeting of the Clinical Society of London, November 25, 1870, Dr. Durham, Assistant Surgeon, Guy's Hospital, reported a case of gradual interstitial degeneration and absorption of bony tissue, resulting in spontaneous fracture of the femur at junction of middle and upper thirds. Three months previous the patient had fallen down stairs and hurt his thigh; but he soon felt nothing of the injury, which he thought a trifling one. Seven weeks later he began to have

aching pain in the thigh, which was considered and treated as neuralgic; and when this had lasted three weeks, he felt, on going to bed one night, a sudden increase in the pain, which quickly became agonizing. Next day limb was swollen and could not be moved. Swelling and pain diminished in a few days, and he got up but could not walk about. Some ten days after Dr. Durham examined patient and found femur fractured, and shortened three inches. Under treatment a cure followed in about two months. — Lancet, December, 1870.

"Dr. Reese was able to present numerous pathological specimens from the museums of Philadelphia which completely illustrated the case. He was also able to appeal to some very striking cases of similar injuries (contusions) recorded in vol. xlvi. Ed. Med. Jour., also to a lecture of Mr. Paget, in Brit. Med. Jour.; February 19, 1870, bearing upon the cause of shortening of the leg as the result of direct injury to the hip."

The following case is presented as probably being of the same character as that of Dr. Reese's.

Mr. John Eads, aged sixty-two years, weighing 195 pounds, getting into his buggy placed his left foot upon the hub, and, just as his right foot cleared the ground, which was frozen hard, the horse started forward, causing him to fall upon his right hip. Limb immediately after felt benumbed, and he was unable to use it. When assisted up he became quite faint. He was seen in a short time by a surgeon, who thought there might be fracture of the brim of acetabulum. There was no shortening, determined by measurement. Rest and stimulating liniments was all the treatment used. This was continued two months. No shortening in this time to be noticed. He gradually got upon crutches and out of doors.

Three years after the accident he is obliged to use the crutches still, and it is found that there is three fourths of an inch shortening. There is no inversion or eversion of toes. The muscles of the limb are to some extent atrophied

from disuse. There is no enlargement about the trochanter; if anything, there is slight flattening. No anchylosis. The case is one from which surgeons, ignorant of their profession, might argue bad practice in treatment.

ALLEGED MALPRACTICE IN OPENING AN ABSCESS.

WALSH *v.* SAYRE.[1]

THIS was an action instituted to recover damages in the sum of $20,000.

HISTORY. In April, 1868, a child was brought to the office of Dr. Sayre for treatment of a large swelling in the left gluteal region.

Drs. Neftel, of New York, and S. W. Gross, of Philadelphia, were present. Dr. Sayre diagnosed the swelling as an abscess, connected, probably, with diseased bone, either of the sacrum, ilium, or lumbar vertebræ. The diagnosis was called in question; when an exploring trocar was introduced which showed the presence of pus. The opening made by the trocar was then enlarged to half or three quarters of an inch, when there immediately escaped more than a pint of pus, floating in which there were shreds of dead cellular tissue, one so large as to require enlarging the wound somewhat. The mother supposed this was a portion of the child's flesh that had been cut off and became very much excited, so that child was dressed with difficulty.

She was requested to return in the morning that the cause of the abscess might be learned and suitable treatment directed. This she promised to do, but Dr. Sayre heard no more of the case till he was notified to defend himself against a charge of malpractice. It appears in the evidence that, subsequent to the operation, the patient was submitted to the examination of two well-known New York surgeons, who, too hastily, came to the conclusion that the hip-joint had been

[1] Alleged Malpractice Suit, *Walsh* v. *Sayre*, pub. by Geo. H. Shaw & Co., New York, 1870.

punctured, and so expressed themselves to the friends of the patient.

There appears in connection with the prosecution another party whom it would scarcely be necessary to mention if it was not for the purpose of showing what means are frequently resorted to for the purpose of bolstering up such suits, and it is well his evidence did not come before an ordinary petit jury, else his combination of ignorance and effrontery might have been taken for testimony of the highest order. Here the "abused witness" would have been an arm of strength to the plaintiff.[1]

That the charge was false, the child, with the cicatrix of the operation and the condition of the joint, at that time existing, determined by medical witnesses, who *were* "experts," would be the strongest evidence the defendant could bring forward, and for this purpose he asked the court that a personal inspection be accorded him and other qualified surgeons. This "personal inspection" was objected to by the attorney for the plaintiff, as a "personal trespass," and would consent to nothing but an "oral examination." The court sustained the objection, on the ground that "there was no precedent allowing personal examination previous to the trial of the cause." Upon petition, "the equity side of the court" recognized that there were other rights existing at the same time, side by side with those under the ordinary rules of law, and ordered that such an examination be made, thus establishing a "precedent" against injustice to surgeons in such suits.

Opinion of the court by

JONES, J. "The question whether a surgical operation has been unskilfully performed or not is one of science, and is to be determined by the testimony of skilful surgeons as to their opinion, founded either wholly on an examination of the part operated upon, or partly on such examination and partly on information derived from the patient; or partly on such examination, partly on such information, and partly on

[1] Referring to one "Dr." Vaughan, whose testimony is so absurd it is left out of abstract of evidence.

facts conceded or proved at the trial; or partly on such examination and partly on facts conceded or proved at the trial.

The present action is brought on the faith of the expressed opinion of surgeons that the operation was unskilfully performed. This opinion is founded on the examination of the part operated on, and the natural presumption arising from the circumstances is, that it is also founded in part on statements made by the patient and her parents. To what extent, if at all, the judgment of these surgeons in forming their opinions was influenced by a bias created unconsciously to themselves by such statements, cannot now be determined. That must be left for the trial. It is, however, fair to assume, on this motion, the possibility of the judgment having been swerved by such bias.

As the determination of the action depends on the judgment of skilled surgeons, the defendant will prosecute his defence under serious, if not disastrous, disadvantages if this motion be denied. For, in that event, he will have to combat the testimony of those surgeons who have already formed their opinions adverse to him, possibly under the influence of an unconscious bias, and who have not only so formed it but expressed it, whereby, in the language of an eminent writer, 'the expressed opinion has become as a fact to them who expressed it' (the meaning of which is, that the mind of one who has expressed an opinion naturally exerts its utmost power and resources to sustain the opinion and refute all objections urged against it), by his own testimony alone, and that of his assistants present when the operation was performed, upon which testimony the usual criticism will, undoubtedly, be passed, viz.: As to himself, that he is a party in interest swearing to relieve himself from pecuniary responsibility and to preserve his reputation; and as to his assistants, that they are not sufficiently skilled to have their testimony weigh against the plaintiff's witnesses.

There is no just reason why the defendant should be suffered to remain under this disadvantage when it can be easily

avoided by a resort to the same means by which it was created.

While cases may occur where such ignorance or gross neglect is displayed that all competent surgeons would unite in condemning the operator, yet, in the present advanced state of surgical science, cases frequently happen where surgeons of the greatest skill will differ with each other in their diagnosis of the nature and character of the difficulty to be remedied, in their views as to whether an operation would produce a cure; as to whether it would be of some benefit to the patient, although not a radical cure; as to whether the amount of benefit to be gained would justify the performance of an operation; as to whether the operation could be performed at all without destruction of life; and, lastly, as to the best mode of performing the operation.

Of course it cannot now be ascertained to which class this case will ultimately be found to belong; but on this motion, nothing appearing to the contrary, it must be assumed that the defendant has a fair prospect of succeeding in his defence, which cannot be if the action falls in the first class.

In a case, then, where skilled surgeons may honestly differ in their views, it is not proper that the cause should be left to be determined on the evidence of two or three surgeons selected by the plaintiff out of the whole body of surgeons, perhaps because their views are adverse to the defendant's; but it is eminently proper that defendant should have the benefit of the testimony of one or two surgeons of his own selection, and that these surgeons should have the requisite means of forming a correct judgment, one of which is an examination of the affected part.

True, the plaintiff's witnesses may on the trial be examined as to the facts on which they formed their opinion, and may be called on to give a description of the part operated on; and it is suggested that, upon the evidence thus given, any number of surgeons whom the defendant pleases to call may found opinions. I have, however, had sufficient experience in the trial of causes to know that witnesses, when

giving a description, frequently honestly differ in material points.

This occurs sometimes by one fact or circumstance arresting the attention of one, while it escapes that of another; sometimes by an inaccurate measurement of distances, either by the eye or instrument, more frequently, however, by the eye, and sometimes from a forgetfulness of some facts or circumstances, which forgetfulness frequently arises in consequence of the facts or circumstances so forgotten, not at the time of their occurrence striking the mind of the witness as immaterial, and, therefore, making no impression on his memory, although they are, in fact, most material.

The evidence of the plaintiff's witnesses will be open to all these defects, while that of surgeons selected by the defendant, who have prosecuted their examination with light afforded by suggestions offered by him as to the line of examination proper to be pursued, will (although it may in itself be liable to similar defects) bring forth all facts and circumstances which exist and are deemed material by them or by the defendant. Thus, each party having an opportunity to investigate and ascertain as to existence of facts and circumstances deemed by each to be material, every fact and circumstance bearing in the least on the subject will be ascertained and spread forth in the evidence, whereby other medical witnesses will be the better enabled to form a correct judgment, and the jury be the better enabled to arrive at the truth.

If the court has power on this application to compel a discovery of the character of the one sought for, this is a proper case in which to exercise it.

Courts are instituted for the purpose of deciding disputes between litigants. To do this they must determine the truth of such material questions of fact as are in controversy. In the performance of this duty certain rules of evidence were established, as being the best that, without infringing on public policy, could be devised for the ascertainment of truth. It was, however, considered that individual should

yield to public benefit. Therefore no rules of evidence, contrary to the interest of the public at large, could be adopted, although beneficial to individual litigants.

Among the rules thus established were those that exclude a party from being a witness in his own favor, and also a person pecuniarily interested in the result of a litigation, from being a witness on behalf of the side on which he was so interested.

Two reasons were assigned for these rules: the one, danger of prejudice to the opposite party, by the introduction of false testimony by witnesses biased by such interest; the other, danger to public morals, by offering an inducement to perjury and falsification of books and papers. Both these reasons spring from the interest of the party or witness who is offered as a witness.

There was a further rule which forbade a party to an action from being examined as a witness at the instance and in behalf of his adversary; and, as an incident of this further rule, a party was not allowed to obtain either an inspection before trial, or the production at the trial, of the books, papers, or documents of his adversary.

This last rule is sometimes said to be founded on a general principle of law that no man shall be compelled to give evidence against himself; but this principle is itself deduced from the same doctrine upon which the first two rules rest, since it is evident that bias and temptation to commit perjury and falsify is as strong to one who is compelled to give evidence against himself as it is to one who voluntarily testifies in his own favor.

These rules were as ancient, as well settled, and as firmly established as any of the principles of the common law.

But in course of time the last of these rules was found to be such a drag on the ascertainment of truth in judicial investigations, as, in civil actions, to overbalance the objection to such compulsory examination and production, arising from apprehended danger to the public morals, and it was considered that, so far as prejudice to the party desiring the exam-

ination of his adversary was involved, it was a matter for his own consideration, and if he chose to subject himself to that prejudice, it was not for the court to interfere.

The country was ripe for a change.

The judges of the courts of common law, however, deriving their power from and proceeding according to the course and principles of the common law, found themselves constrained to hold that they had no power or authority to set at naught, out of their own heads, by judicial decision, the well settled principles of the common law, above referred to, and, therefore, to hold that they had no power to compel the examination of, or the production of, his books, papers, and documents, by one party, at the instance and in behalf of the other.

This want of power became an acknowledged defect in the administration of justice by courts of common law. Black. Com. vol. iii. pp. 381, 382.

In looking around to find the means to obviate this defect attention was naturally directed to the Court of Chancery, which, in the causes whereof it then took cognizance, proceeded, according to the form of the civil law, upon the examination and oath of the parties, and which had withstood an attack made upon it by the Commons, for so proceeding against this form, and in subversion of the common law. Black. Com. vol. iii. p. 52. And it was conjectured that that court, which had already interfered to mitigate the severity, or supply the defects in judgments at law, on the ground that it was against conscience to allow them to be enforced as originally rendered, would, on the same ground (it not being restrained by the above referred to principles of the common law), compel a party to an action at law to make discovery of such matters as were necessary to be ascertained, to enable the court of common law to determine the action according to the truth and justice of the case, since to conceal them would be contrary to conscience.

The experiment was tried and was successful.

It thus appears that the necessity of resorting to a Court of Chancery to obviate the defect in question, instead of having it remedied by the courts of law themselves, arose from the obstacle presented by the above referred to principles of the common law, and from that alone. But for these principles courts of common law, by their usual and ordinary process and proceeding, viz., by subpœna and rules of court, both enforcible by attachment, — could have met the requirements of the age and supplied the defect. By subpœna they could have compelled the party to appear before the jury and there disclose those facts which were locked up in his breast, and by the same process could have required him to produce on the trial his books, &c., and by rule of court (made upon parties over whose persons they had acquired jurisdiction, in an action of the subject matter of which they had jurisdiction), could compel him, before trial, to submit to an examination, and also to produce his books, &c.

If, then, these principles of the common law have been abrogated by statute, courts of common law, by virtue of their preëxisting and still existing common law powers, have full authority to compel a discovery upon the same principles, and to as full an extent, and with as much completeness as the Court of Chancery was accustomed to do.

Of course, in exercising the authority, courts of common law would look to the former decisions and principles of the Court of Chancery and be guided by them, except where they were so manifestly unjust, unreasonable, or absurd as to justify their denomination as not law.

This presents two questions : —

First. Have the above referred to principles of the common law been abrogated ?

Second. Do the principles on which the Court of Chancery proceeded, in compelling a discovery, apply to and warrant the compulsion of a discovery of the nature now asked for ?

If both these questions are answered in the affirmative, the power of the court to grant this motion is established.

The Legislature of the State of New York has enacted that, in civil actions, a party to the action may be examined as a witness, either in his own behalf, or at the instance and on behalf of the adverse party; and also, that no witness shall be excluded on account of interest.

These enactments abrogate (so far as civil actions are concerned) the common law principles that a party to an action, or a person interested in the event, shall not be permitted to give evidence in favor of himself, and that no man shall be compelled to give evidence against himself.

It may be urged that, as the enactment which abrogates these principles provides for discovery by the oral examination of a party, and by the compulsory production of his books, papers, and documents, it excludes all other discovery.

If the principles abolished by statute are ones from which a court derives authority to exercise certain functions, it would necessarily follow that the abolition of those principles abolished the authority, and the only authority to act would be such as the statute gave.

But when the principles thus abolished had theretofore simply operated in restraint of the ordinary powers and procedure of a court (which is the case here, as above reasoned), then abolition simply removes such restraint, and leaves the court to unfettered action, except in so far as it is curbed by provisions of the statute.

Thus, then, so far as discovery by oral examination and production of books, papers, and documents are concerned, the provisions of the statute are to be followed. But there is no prohibition against the compelling of any other discovery which may be conformable to the principle of the former practice of the Court of Chancery.

True, the Court of Chancery has been abolished, and it is enacted that no bill to obtain discovery under oath in aid of the prosecution or defence of another action shall be allowed; but the principles of equity jurisprudence are still in force.

Courts of equity, in compelling discovery, proceeded on the principle that it was against conscience that a party to a litigation having knowledge, or the means by which knowledge could be obtained, of facts material to the litigation, should obtain an advantage to himself to the sacrifice of the development of truth, and consequent working of injustice, by withholding and concealing such knowledge and means.

Upon this principle a discovery of books, papers, and documents is ordered.

The principle clearly covers and authorizes the compulsory discovery, in a proper case, of things or substances other than books, papers, &c.

It can readily be perceived that, although the cases would be rare where the discovery of any thing or substance other than books, &c., would be required or proper to be ordered, yet cases sometimes do occur (and this is one) where such discovery is both requisite and proper.

I am aware there is no recorded case of an application for any such discovery having been granted; but at the same time, there is no recorded case of any such application having been denied. It is probable no such application was ever made. The reason why it never was cannot be known, but many may be conjectured. Among them, that people are always timorous of taking the initiative, especially if the step is likely to subject them to large expense, as a suit in chancery would; therefore, a case of urgent, almost absolute, necessity is requisite to set them in motion. It is probable that no case of sufficient urgency to overcome this timorousness occurred. Again: at the time of the commencement of the action at law, the subject of which inspection is desired may either have been lost, destroyed, used up, or passed out of the control of the party, or have become so changed by natural or artificial causes, as that an inspection would be of no benefit. Again: as a suit in chancery was of considerable duration, the subject would, in all probability, have become so changed from natural causes that an inspection, when ordered, would be of no avail. Again: in

a large proportion of cases, it may have been considered that the benefit to be derived would not be adequate to the expense.

A motion similar to the present obviates all these objections, except the second; for the principle being now established, it will require but a few days to adjudicate on any particular motion, and the expense is but trifling.

Nor have I overlooked the fact that the Court of Chancery established many rules for its guidance in granting and refusing a discovery asked for; but none of these rules are antagonistic to granting this motion.

The fact that the discovery asked is a portion of the body, at first disposes the mind to regard it unfavorably, on the ground of delicacy. But it is not the first case in which such an examination has been had; as witness, Cases of Mayhem (Black. Com. vol. iii. p. 333); Cases of Divorce for Impotency (5 Paige Rep. 554; Beck's Med. Juris. vol. i. pp 116 to 125); Cases of Alleged Pregnancy (Beck Med. Juris. pp 204, 205).

Upon an examination, conducted under the authority of the court, there can be no undue exposure.

I conclude that the court has the power on this application to order an examination, and that this is a proper case in which to exercise it. *Motion granted.*"

Upon which it was ordered that Prof. F. H. Hamilton, M. D., Ernest Krackowizer, M. D., and Wm. H. Van Buren, M. D., should make such personal surgical examination, under the direction of John J. Townsend, Esqr., counsellor at law, as referee, all proceedings on the part of the plaintiff being stayed till such examination was submitted to. The plaintiff was to attend on such examination at least three times, if in the judgment of the referee such attendance was deemed necessary.

The following is a copy of the report of the experts appointed by the court: —

"New York, *Nov.* 19, 1868.

By order of Judge Jones, of the Superior Court, we have this day examined the person of Margaret Sarah Walsh, a girl between seven and eight years of age, who, through her father as guardian, has charged Dr. Lewis A. Sayre with having punctured her left hip-joint, letting out its synovial fluid, producing a disease of the same, and thereby disabling her for life.

The girl was in a tolerably good condition, walked well without limping, both feet being naturally on the floor without any distortion of the body.

We then removed her clothing, and, laying her on a sofa on her back . . . . the limbs could be extended to their full length, so that the thighs and calves of each leg touched the sofa without any tilting of the pelvis. The two limbs were then very carefully measured by each of us, and were found to be of exactly the same length ; viz., $20\frac{3}{8}$ inches.

The right hand limb could be flexed so as to bring the knee to the chin ; the left one could not be flexed so freely, but could be brought to an acute angle with the pelvis. Rotation, abduction, and adduction were free, and without any pain whatever ; concussion upon the knee, or over the trochanter major, gave no evidence of pain. Passing the fingers firmly into the iliac fossæ of both sides, no swelling could with firm pressure be detected, or pain produced. There was a small, dimpled-like depression above and behind the trochanter major, on the gluteal muscles, which the father stated was the scar which followed Dr. Sayre's operation. Dr. Sayre also testified that this was the place where he punctured the abscess at the time he first saw the patient, and we are fully convinced, from the position of the cicatrix, and the condition of the hip-joint, that it was not punctured at the time of the operation performed by Dr. Sayre, as charged in the complaint. There was no deviation or tenderness of the entire spinal column. There was an open ulcer on the outer and posterior portion of the thigh, about four inches below the hip-joint, and another near the sacro-

iliac junction, the edges of which were inflamed; and there was considerable inflammation and infiltration in the cellular tissue around them, which probably was the obstruction to the perfectly free flexion and adduction of the thigh on that side.

There was considerable pain on pressure, and fulness over the sacro-iliac junction, and it is our opinion that this was the normal seat of the disease, and that the coxo-femoral articulation was in a perfectly normal condition, as it is at present.

(Signed) Wm. H. Van Buren, M. D.
Frank H. Hamilton, M. D.
Ernest Krackowizer, M. D."

In a letter to Dr. Sayre, Dr. S. W. Gross, of Philadelphia, who was present at the operation, says: —

"There was not the slightest evidence of hip disease. . . . . A swelling was detected in the left gluteal region, about the diagnosis of which there was some doubt. It was said, on the one hand, to be a fatty tumor. There was an obscure sense of fluctuation, and I pronounced it a cyst of some kind, probably a chronic abscess. To clear up the diagnosis you introduced a small exploring instrument. The point moved freely in a cavity, but nothing more than a little blood, at first, passed from the canula. On moving the latter, however, about and making pressure, pus made its appearance. You then punctured the abscess with your bistoury, making an incision about eight lines long, the pus spurted out in a full stream upon your office floor. Into the opening thus made you afterwards poured some carbolic acid."

Dr. Neftel, who was present at the operation, after relating the history as above, briefly says further, "I positively recollect that the needle did not touch a bone or any joint."

Dr. O. S. Paine relates the same facts, and says further: "The opening was in the most prominent part of the abscess, near the crest of the ilium, the abscess forming in front of the gluteal muscles. Dr. Sayre did not open the hip-joint, nor go within two inches of it."

Dr. Sayre, after waiting a year for the plaintiff to move the case for trial, was obliged to bring it to trial himself. The jury being empanelled, the plaintiff offered to refer the cause to referees. This was refused as the defendant preferred to go to trial before a jury. It was now found that the witnesses, Drs. Willard Parker and J. M. Carnochan, upon whom the plaintiff relied to prove his case, had failed to appear. At the instance of the plaintiff an attachment was issued for these witnesses. Fearing that before these witnesses were produced the case might be laid over till another term of court, the defendant consented that the cause might go before referees.

The referees finally appointed were W. C. Traphagen, Esq., John Swinburne, M. D., and Benjamin Estes, Esq.

ABSTRACT OF EVIDENCE. — FOR PLAINTIFF.

Prof. *Willard Parker* testified "that he had made an examination of the hip some time after the operation, and found a glairy, viscid fluid, which he could not say positively was synovial fluid; he merely suspected it was; the hip-joint was not diseased. Did not know there had been any abscess. The fluid might have come from an ulcer or from an abscessal membrane. Would say child was scrofulous.

Dr. *J. M. Carnochan* testified that he had examined the child, saw orifice and discharge from hip; the discharge a glairy fluid. It struck me it was synovial fluid. Examined it with finger, looked at its general tenacity and color. Opinion at the time it was synovial fluid. Orifice so situated that joint might have been punctured. Child was scrofulous. Sanious fluid is a fluid half pus and serous fluid mixed with blood. Synovial fluid is made up of one thing and another; sometimes there are salts in it, epithelium in it, and there are various other things. Any man that does not know the difference between synovial fluid and these by sight or touch had better get out of the profession as soon as he can."

The case being taken under advisement by the referees they reported to the honorable court: —

"That the defendant had, after consultation with other skilful surgeons, operated upon the plaintiff for an abscess in the region of the hip, and in making such operation used due care and skill, and large quantities of pus escaped from such abscess after such operation.

That in making such operation he did not puncture the hip-joint, nor did he cause the synovial fluid to escape or to be let out by such operation.

That the operation was performed skilfully; that the patient sustained no injury from it; and that such operation was necessary to the health of the patient and her recovery.

We further find defendant is entitled to judgment.

Whereupon the court gave judgment for defendant in five per cent. on the sum of $20,000, as an extra allowance, in addition to his usual costs.

Whereupon the plaintiff's counsel moved for a new trial on the ground that Dr. John Swinburne, one of the referees, was a personal friend of the defendant.

Argument being heard, the court, FREEDMAN, J., denied the motion, with $10 costs. If plaintiff is aggrieved, the remedy is to bring an appeal."

Synovial fluid "is a transparent, yellowish-white, or slightly reddish fluid, viscid like the white of an egg, having an alkaline reaction, and slightly saline taste. It consists, according to Frerichs, in the ox, of 94.85 water, 0.56 mucus and epithelium, 0.07 fat, 3.51 albumen and extractive matter, and 0.97 salts." Gray's Anat. (2d Am. ed.) 184.

Synovia "is an alkaline, transparent viscous secretion containing albumen, which is coagulable at a boiling temperature." Wilson's Anatomist's Vade Mecum (2d. ed.) London.

Synovial fluid "differs from serous fluid very considerably in physical and chemical character; it is more viscid, and contains a larger proportion of organic matter than the serous fluids." Flint's Physiology, vol. iii. p. 44. "It is so viscid that it is with difficulty poured from one vessel to another." Ib. 45. "More viscid in animals that take considerable exercise; thinner when the joint is kept quiet." Ib. 45, 46.

Pus "of a good quality is a yellowish-white fluid, opaque, inodorous, and of a creamy consistency. It is made up of water, albumen, extractive matter, and a small quantity of soda, phosphate of lime, and other salts."

"Normal pus consists essentially of two distinct parts; pus corpuscles or globules, and a colorless aqueous fluid, liquor puris, in which the corpuscles are suspended." Dunglison's Med. Dic.

The pus corpuscle "is a round, granular, nucleated cell, containing from one to six nuclei, which are rendered more distinct by the action of acetic acid. It measures, on an average, about $\frac{1}{2800}$ of an inch in diameter." Smith's Op. Surg. vol. i. p. 222.

Pus may also contain "particles of partially disintegrated tissue, as shreds of areolar tissue, fragments of bone," &c. Ib.

Laudable pus "is of a white, yellowish tint, opaque, homogeneous, of a sweetish taste, without any particular smell, and of the consistency of thin cream." Gross's Surg. vol. i. p. 127.

"*Sanious*, serous, ichorous, or sanguinolent pus is thin, almost transparent, of a yellowish, oily, or reddish color." Ib. 128.

IN SECONDARY HEMORRHAGE.

Fisher *v.* Gross.[1]

"It appeared upon the trial that a colored man, who had lost his leg in consequence of a wound received during the late civil war, applied to Professor Gross to perform an operation for the cure of an aneurism which had formed in the stump as the result of a fall. It further appeared that the opinion of other surgeons had also been asked, and that this had been in some cases unfavorable to operative interference; but it does not appear that the surgeons previously

[1] Med. Times, vol. i. p. 280; Med. Record, vol. vi. p. 133.

consulted were of great eminence, and the attempt to prove that the operation had been declined at the Pennsylvania Hospital failed.

The plaintiff was fully informed as to the nature of the operation required, and the risks he would have to run in submitting to it, after which and immediately before the operation, he was heard to declare that he would have it done at all hazards. No want of skill in the performance of it, and no want of due attention to the patient afterwards, were alleged against the defendants: and the prosecution seems to have hinged upon the fact that the defendants had had the misfortune to lose a patient after performing an eminently justifiable and proper operation.

The limb had been amputated through the upper third. The ligation of the artery, for the cure of the subsequent aneurism, was done at the clinic of the Jefferson Medical College, by Prof. Gross, assisted by Drs. S. W. Gross, — his son, who was made one of the defendants in the suit, — Andrews, Newcomb, Saunders, Johnson, and Allis. After the performance of the operation he was taken to his home, and there carefully nursed day and night by physicians and advanced students, and when hemorrhage occurred, as it was feared it might, assistance was promptly at hand. All these services were rendered gratuitously.

The patient died from the hemorrhage. The coroner's jury exonerated the surgeons from all blame; nevertheless, the case was not permitted to rest here. One Jermon ordered the body to be disinterred, and to be reëxamined by Dr. Duffie. The latter was, however, unable to discover from his examinations any evidence of malpractice: in fact, as the vessels of the stump had been removed by the coroner's physician, no cause of death was apparent. A suit was then instituted by this man Jermon, according, as he said, to the dying request of Fisher, but in direct opposition to some of the relatives of the deceased.

Notwithstanding that it was proved at the trial that the deceased had not lived with his wife and had been separated

from her, and that she was not with him at the time of the operation, — only coming to him later to nurse him, — she nevertheless appeared as the nominal plaintiff, but seems to have done so with great reluctance, for, three weeks before the commencement of the suit, she called on Prof. Gross, to say she disapproved and discountenanced it. His mother also seems to have been very averse to its being instituted, for, hearing of the lawyer's intention to disinter the body, in order to have a post mortem examination of it made, she forbade it, and threatened to prosecute him if he did so.

The plaintiff's counsel, it is reasonable to suppose, were the real plaintiffs, especially as it was clearly brought out in evidence that they had agreed to sustain all the expense of the prosecution, in consideration of receiving a percentage of the damages.

These things appearing in evidence, his Honor Judge LYND directed that a nonsuit should be entered against the plaintiff, she having utterly failed to make out a case against the defendants."

BARRATRY. "If any person shall wickedly and wilfully excite and stir up any suits or quarrels between the people of this State, either at law or otherwise, with a view to promote strife and contention, he shall be deemed guilty of common barratry, and shall be fined not exceeding $100; and if he be an attorney or counsellor at law, he shall be suspended from the practice of his profession, for any time not exceeding six months." Hurd, R. S. Ill. 1874, p 355, § 26.

MAINTENANCE. "If any person should officiously intermeddle in any suit at common law or in chancery, that in nowise belongs to or concerns such persons, by maintaining or assisting either party, with money or otherwise, to prosecute or defend such suit, with a view to promote litigation, he shall be deemed guilty of maintenance, and upon conviction thereof shall be fined and punished as in case of common barratry: *Provided*, that it shall not be considered maintenance for a man to maintain the suit of his kinsman or servant, or any poor person out of charity." Ib. § 27.

ALLEGED MALPRACTICE IN THE TREATMENT OF FROST-BITE.

KAY *v.* THOMPSON.[1]

(Supreme Court of New Brunswick.)

"THIS was an action against the defendant for negligence and unskilfulness as a surgeon, in his attendance on the plaintiff, whereby, it was alleged, the plaintiff had suffered great and unnecessary pain, and had lost his hands and feet and was prevented from continuing a profitable employment in which he was engaged, as superintendent of a copper mine.

At the first trial of the cause it appeared that the plaintiff was employed as superintendent and manager of a copper mine, at a place called Jetite, at a salary of £350 sterling per year, to be increased to £450; that, in going to his residence from the village of Maguadavic, on the night of the 23d of December, 1865, he lost his way in the snow and was very severely frost-bitten in his hands and feet; that the defendant (who lived about nine miles distant) was sent for the next day, and attended the plaintiff, dressing his hands and feet, and giving directions for his treatment; that the plaintiff suffered great pain from the injuries, and frequently sent for the defendant during the next twelve days; that the defendant sent him medicine, &c., from time to time, but did not visit him again till the 6th of January, when he gave some further directions as to his treatment. Between that time and the 18th of January the plaintiff sent for the defendant several times.

On the 18th the defendant again visited the plaintiff and found his hands and feet in a state of gangrene; the fingers were quite dead, and only connected with the hands by the ligaments and tendons, and the metacarpal bones were protruding nearly half an inch. On this occasion, the defendant cut off the plaintiff's fingers and toes by merely severing the tendons. The plaintiff's sufferings continued after this,

[1] Am. Law Reg. vol. x. N. S. 594.

and he sent for the defendant two or three times, but, as he did not go to him, the plaintiff, on the 28th of January, employed another surgeon who amputated his hands at the wrist, and a part of his feet. The defendant's contention at the trial was, that the plaintiff's hands and feet were so completely frozen that all vitality was destroyed, and no skill could have saved them, and he knew this when he first saw the plaintiff; that his more frequent attendance would have been of no service, as he could have done no more than he did by poultices, &c., and giving directions for the plaintiff's treatment; that, though amputation might have been performed on the 18th day of January, it could not have been performed sooner, because the line of demarcation between the parts superficially frozen and the dead parts was not defined until then, and he considered it advisable to wait about ten days longer to see how far the granulations (which were then forming) would extend down the hand, in order to save as much of the hand as possible; and this, he said, could not properly be known at the time the amputation was performed. A number of medical witnesses were examined on both sides as to whether the freezing of the plaintiff's hands and feet were superficial or entire, and if the latter, whether with proper treatment his hands and feet could have been saved; also, whether more frequent visits to the plaintiff were necessary, and whether the amputation should have been performed at an earlier period.

The evidence on these points was very conflicting. The jury gave a verdict for the plaintiff for $25,000 damages, and found, in answer to a question left by the judge, that, under the circumstances, the plaintiff would have lost a portion of his fingers (as far as the second joint). That verdict was set aside for the improper rejection of evidence and for excessive damages. On the second trial a greater number of medical witnesses were examined on the part of the defendant, but the jury did not agree. The case was tried a third time in August, 1869, on substantially the same evidence as before, and the plaintiff obtained a verdict for $9,000 damages.

A rule *nisi* was granted to set aside this verdict on the ground of improper admission of evidence; that the verdict was against evidence; and excessive damages.

Kerr & Grimmer showed cause against the rule; *Thompson* was heard in support of it.

RITCHIE, C. J., delivered the judgment of the court.

The evidence objected to in this case was that given by the medical men, who, not having any personal knowledge of the case, were called as scientific witnesses to give their opinions in the nature of experts. The objections taken were as to the form and substance of the questions put, and as to the answers these witnesses were allowed to give.

This description of evidence is founded, not on the personal observation of the witnesses, but on the case itself as proved by witnesses on the trial; and, when scientific men are called as witnesses, they cannot give their opinions as to the general merits of the cause, but only their opinions on some question of science raised by the facts proved.

It is objected here that the witnesses were asked, and were allowed to give, their opinions on the very point which the jury were to decide.

Folkes v. *Chadd*, 3 Doug. 157, may be considered the earliest leading case on this subject. It was followed by others, and perhaps some of them are not entirely reconcilable as to the strictly proper form of the question, and the extent to which the witness may be interrogated.

In *Jameson* v. *Drinkald*, 12 Moore, 157, PARK, J., speaking of nautical witnesses giving their opinions in cases for running down ships, says: 'They ought not to say that they consider the fault to have been either on the one side or the other.' And GASELEE, J., in the same case says: 'I am clearly of opinion that a scientific person, called as a witness, is not entitled to give his opinion as to the merits of a case, but only as to the facts as proved by other witnesses.'

The cases of *Sills* v. *Brown*, 9 C. & P. 601; *Fenwick* v. *Bell*, 1 C. & K. 312; and *Brown* v. *Brown*, Law R. 1 Prob. & Div. 46, may also be referred to.

But we are relieved from a critical examination of these cases, because in *McNoughton's case*, 10 C. & Fin. 200, the House of Lords submitted to the judges for their opinion a question which entirely covers the point now in contest before us. The question is in these words: 'Can a medical man, conversant with the disease insanity, who never saw the prisoner previous to the trial, but who was present during the whole trial and the examination of all the witnesses, be asked his opinion as to the state of the prisoner's mind at the time of the commission of the alleged crime; or his opinion whether the prisoner was conscious at the time of doing the act that he was acting contrary to law; or whether he was acting under any, and what, delusion at the time?'

The answer, delivered by TINDAL, C. J., was as follows: 'We think the medical man, under the circumstances supposed, cannot in strictness be asked his opinion in the terms above stated, because each of these questions involves the determination of the truth of the facts deposed to, which it is for the jury to decide; and the questions are not mere questions upon a matter of science, in which case such evidence is admissible. But where the facts are admitted, or not disputed, and the question becomes substantially one of science only, it may be convenient to allow the question to be put in that general form, though the same cannot be insisted on as a matter of right.'

This was received and acted upon by the House of Lords, and must, as the decision of the highest appellate tribunal in the nation, bind all inferior courts.

However difficult or inconvenient in practice it may be to propound questions, or to frame answers so as to bring the examination strictly within the limits so laid down, the burden is on the party offering such testimony, and from it he cannot escape. We have with great labor investigated the learned judge's notes of the trial, extending over some two hundred and fifty pages of foolscap, and we regret to have discovered, in many instances, clear departure from the prescribed rule, both in the questions proposed and answers given.

The question at issue in this cause was, whether the defendant had been guilty of neglect in the discharge of his professional duties in his attendance on the plaintiff; and the facts were neither admitted nor contradicted; the evidence of the medical witnesses being extremely contradictory.

It will only be necessary to refer to a few of the questions objected to by way of illustration. Thus, Dr. Gove was asked, 'What reliance, in a case like the present, can be put on the report or description of a messenger to the medical man?' This was clearly not a question of science.

Another question was: 'From the plaintiff's statement, and the statement of the witnesses you have heard, how do you account for the destruction of the plaintiff's fingers and toes; or what caused their destruction?' The answer to this was: 'I think long continued stimulation of the raw surface produced the destruction or the death of the parts.'

But, not content with this, the witness is pressed still further by the following question: 'From the evidence before the court, to what do you ascribe the loss of the plaintiff's fingers and toes?' His answer was: 'I should say, first, to non-attendance of the defendant; over stimulation of the inflamed parts.' Here the witness undertakes to determine one of the most important questions of fact in controversy, and, in effect, precisely what the jury were to decide on the merits.

Again, Dr. Black was asked the following question: 'From the evidence, to what would you ascribe the loss of the plaintiff's limbs?' His answer was: 'I would ascribe it, first, to frost-bite; second, to neglect in attendance; third, to want of proper treatment.'

Nothing could be more objectionable than this answer, if we follow, as we are bound to, the rule laid down by the House of Lords.

The evidence thus pressed in was material, and might have had a most important effect on the minds of the jury. There were only three medical men examined on the part

of the plaintiff; and Drs. Gove and Black were material and important witnesses, on whom he mainly relied. The jury, for aught we know, may have adopted their conclusions thus stated on the merits, without themselves at all weighing the facts and opinions in evidence on which those conclusions were based, and without determining whether those facts and opinions warranted the conclusions stated; and which conclusions it was the duty of the jury, and the jury alone, wholly unbiased, to arrive at.

The law with regard to the right of a party to a new trial, where improper evidence has been received against him, is so clear, and has been so often acted on in this court, that it is hardly necessary to cite authorities in support of it. In the case of *Bailey* v. *Haines*, 19 Law J. Q. B. 78, where evidence was improperly received, but the jury professed to have found their verdict independent of such evidence, Lord DENMAN expressed, as the opinion of himself and the rest of the judges, that, if evidence was wrongly received, it was quite immaterial that the jury professed to have found their verdict independently of it. In *Wright* v. *Doe dem. Tatham*, 7 A. & E. 330, the law is thus explicitly stated by Lord DENMAN: 'Sir F. Pollock suggested that we might act upon the example of the Common Pleas, in *Doe* v. *Taylor*, 6 Bingh. 561, and might enter upon an inquiry whether, even though this evidence may have been improperly received, there was not proof enough in the cause without it to warrant the verdict. But as this court has so lately, on full consideration, and in conformity with a decision of the Court of Exchequer, renounced the discretion which was in that case exercised, we need not repeat our own reasons for holding that, where evidence formally objected to at *Nisi Prius* is received by the judge, and afterwards thought by the court to be inadmissible, the losing party has a right to a new trial.' This doctrine was acted on in this court in the cases of *Riley* v. *The Mayor, &c. of St. John*, Easter T. 1864, and *Ginan* v. *The Mayor, &c. of St. John*, Easter T. 1866, and in other cases. All we can say in conclusion on this

point is, that if counsel will press in improper evidence after objection made, they must take the consequences which necessarily and legally flow therefrom.

As to the second ground, that the verdict was against the evidence, the verdict having been found, as we think, on improper evidence, it is not necessary, nor, as we conceive, would it be proper, for us to discuss this point.

As to the last ground, that the damages are excessive, as we are now compelled to grant a new trial, by reason of improper admission of evidence, this point does not arise. It is therefore sufficient for us to say that we adhere to the judgment pronounced by us in this cause, on a former occasion, upon the subject of damages (1 Hannay, 297), and the duty of the jury in respect thereto.

As it has come to our knowledge, in another cause in this court, that the defendant has died since the verdict, and, therefore, as the granting a new trial now, except upon terms, might defeat the ends of justice, we shall refrain from making the rule absolute for a new trial until the next term, in order to afford the plaintiff an opportunity of making any application that he may be advised, as to the terms on which the new trial should be granted. On this point we refer to *Griffiths* v. *Williams*, 1 C. & J. 47, and *Freeman* v. *Rosher*, 13 Q. B. 780."

Patten *v.* Wiggin.[1]

"Action, assumpsit on account annexed. One portion of account is for professional services as a physician, in attendance on defendant's minor son. The defence to this portion of the claim was malpractice in the treatment of the patient, and such ignorance, want of skill, and judgment, on the part of the plaintiff in managing professionally the case under his care, that the patient was more injured than benefited by his treatment, and that on the whole case he was not reasonably entitled to recover anything for his services.

[1] 51 Maine, 594.

Evidence was introduced on both sides as to such treatment and management by the plaintiff during the whole time the patient was under his care. The court (Judge Kent) instructed the jury that if the plaintiff had been guilty of malpractice, or neglect, or want of ordinary care and skill, within the rules hereafter stated, it would be a defence to that part of the claim which related to the treatment of defendant's son, and the court instructed the jury as follows: —

'1. When a man offers himself to the public, or to patients, as a physician or surgeon, the law requires that he be possessed of that reasonable degree of learning, skill, and experience which is ordinarily possessed by others of his profession who are in good standing as to qualification, and which reasonably qualifies him to undertake the care of patients.

This rule does not require that he should have the highest skill, or largest experience, or most thorough education, equal to the most eminent of the profession in the country; but it does require that he should not, when uneducated, ignorant, and unfitted, palm himself off as a professional man, well qualified, and go on blindly and recklessly to administer medicines, or perform surgical operations. The rule above stated is the true one.

But the physician qualified within this rule may be guilty of negligence or malpractice.

2. The law requires and implies, as part of the contract, that when a physician undertakes professional charge of a patient, he will use reasonable and ordinary care and diligence in the treatment of the case.

3. The law further implies, that he agrees to use his best skill and judgment, at all times, in deciding upon the nature of the disease, and the best mode of treatment, and the management generally of the patient.

The essence of the contract is, that he is to do his best — to yield to the use and service of his patient his best knowledge, skill, and judgment, with faithful attention by day and by

night as reasonably required. But there are some things which the law does not imply or require. He is not responsible for want of success in his treatment, unless it is proved to result from want of ordinary care or ordinary skill and judgment. He is not a warranter of a cure, unless he makes a special contract to that effect. If he is shown to possess the qualifications stated in the first proposition, to authorize and justify him in offering his services as a physician, then, if he exercises his best skill and judgment, with care and careful observation of the case, he is not responsible for an honest mistake as to the nature of the disease, or as to the best mode of treatment, when there was reasonable ground for doubt or uncertainty.

If the case is such that no physician of ordinary knowledge or skill could doubt or hesitate, and but one course of treatment would by such professional man be suggested, then any other course of treatment might be evidence of a want of ordinary knowledge or skill, or care and attention, or exercise of his best judgment, and a physician might be held liable, however high his reputation. If there are distinct and different schools of practice, as Allopathic or Old School, Homœopathic, Thompsonian, Hydropathic or water cure, and a physician of one of those schools is called in, his treatment is to be tested by the general doctrines of his school, not by those of other schools. It is to be presumed that both parties so understand it. The jury are not to judge by determining which school in their own view is best. Apply these rules to the evidence.

Then as to medical and surgical treatment of the case: was there, or was there not a want of ordinary skill and judgment, such as to render the plaintiff liable within the above rules — such evidence as satisfies you that he either did not possess the education, judgment, and skill, which authorized him to undertake the case and enabled him to treat it with ordinary skill, or that he was guilty of that neglect or carelessness, in the treatment or investigation of the case, which showed that he did not faithfully and

honestly apply his skill and knowledge and best judgment?'

Defendant requested the court to give the following instructions: —

'A physician who, upon request and in consideration of being paid for his services, takes charge of the case of a diseased person, warrants that he possesses and promises to exercise the knowledge, skill, and care requisite to enable him to understand the nature of his disease, and to treat it properly; but the degree of such knowledge, skill, and care is not that which is possessed and exercised by physicians of the highest knowledge, skill, and care, but it is that possessed by physicians of ordinary knowledge, skill, and care.'

The judge declined to give this, except as given in former instructions.

The judge in his charge also instructed the jury, that in cases where authorities differ or 'doctors disagree,' the competent physician is only bound to exercise his best judgment in determining which course is on the whole the best.

Verdict for plaintiff for the amount of his bill, to which rulings and refusals the defendant excepted.

The case on the exceptions was argued before the law court, at the May term, 1862, and the rulings of the judge at the trial were sustained.

The opinion of the court was drawn up by APPLETON, C. J.

The instructions given were correct. A plaintiff in a suit against a physician for malpractice must prove that the defendant assumed the character and undertook to act as a physician, without education, knowledge, and skill, which entitled him to act in that capacity; that is, he must show that he had not reasonable or ordinary skill; or he is bound to prove, in the same way, that having such knowledge and skill, he neglected to apply them with such care and diligence as, in his judgment properly exercised, they must

have appeared to require; in other words, that he neglected to apply them with such care and diligence as, in his judgment properly exercised, he must have appeared to require; in other words, that he neglected the proper treatment from inattention and carelessness. *Leighton* v. *Sargent*, 7 *Foster*, 460. The same facts which would authorize a recovery for malpractice would constitute a defence in a suit for professional services. Physicians do not warrant the success of their prescriptions. 'The law,' remarks Mr. Justice Woodward, in *McCandless* v. *McWha*, 22 Penn. 261, 'demands qualifications in the profession practised; not extraordinary skill, such as belongs only to few men of rare genius and endowments, but the degree which ordinarily characterizes the profession.' The same views of the law were laid down in *Simonds* v. *Henry*, 39 Maine, 155.

The instructions given were in accordance with the settled principles of law. The one requested had been given in substance. If other instructions had been desired, they should have been requested. *Exceptions overruled.*

RICE, CUTTING, DAVIS, and KENT, JJ., concurred."

ALLEGED MALPRACTICE IN THE AMPUTATION OF A BREAST.

McCLALLEN *v.* ADAMS.[1]

"ASSUMPSIT on an account. One item was $30 for amputating the breast of the defendant's wife. The action was tried in the Common Pleas, before STRONG, J.

The defendant lived in Colerain, in the county of Franklin. The plaintiff lived in Nassau, in New York, a distance of sixty-five miles from Colerain. He had formerly lived in Colerain, and was a surgeon of good reputation. The wife of the defendant had been afflicted with a scrofulous humor in her breast for about two years, which did not, however, prevent her from attending to her domestic duties in the

[1] 19 Pick. R. 333.

family, and the defendant then carried her from Colerain to Nassau and put her under the care of the plaintiff as a surgeon. At that time the humor was not a cancer nor cancerous. After she had been at Nassau ten weeks, the plaintiff performed on her the operation of amputating her breast, and she died in about a week after. The defendant had no communication from the plaintiff, nor from the defendant's wife from the time that he carried her to the plaintiff, until a day or two before her death, when he went to the house of the plaintiff.

The counsel for the defendant contended, that the plaintiff was not entitled to recover for this item, because it was not proved that the service was performed at the request of the defendant.

The counsel for the plaintiff requested the judge to instruct the jury, that as the defendant put his wife under the care of the plaintiff as a surgeon, he impliedly requested him to do for her what he should think necessary and proper; and as the wife must have assented to the operation, her assent was the assent of the husband, and therefore the defendant was liable to pay for this service.

The judge refused to give this instruction, and instructed the jury as follows: 'That as it did not appear that the wife had a cancer or cancerous humor when the defendant put her under the care of the plaintiff, the plaintiff was not authorized to perform the operation, so as to charge the defendant with payment, without proving to the reasonable satisfaction of the jury that the operation was necessary and proper under the circumstances; and proving further, that before he performed the operation, he gave notice to the defendant, or that it would have been dangerous to the wife to wait, before he performed the operation, till notice could be given to the defendant; and as no evidence of this kind was given or offered, the jury would not be authorized to allow this item.'

The jury found for the plaintiff, but did not include this item in their verdict.

To the refusal to give the instruction prayed for by the plaintiff, and to the instructions given to the jury, the plaintiff excepted.

In support of the exceptions, counsel cited Bul. N. P. 26; Bac. Abr. Action on the Case, F; *Slater* v. *Baker*, 2 Wils. 359; *Seare* v. *Prentice*, 8 East, 348; *Groenvelt's case*, 1 Ld. Raym. 214; *Russel* v. *Palmer*, 2 Wils. 325; *Pitt* v. *Yalden*, 4 Burr. 2060; *Dearborn* v. *Dearborn*, 15 Mass. R. 316; *Executors of Smedes* v. *Elmendorf*, 3 Johns. R. 185.

SHAW, C. J. The court are of opinion, upon the facts appearing by the bill of exceptions, that the defendant, by placing his wife under the care of the plaintiff, whom he knew, at a distance from his own residence, for medical and surgical treatment, for a dangerous disease, impliedly requested him to do all such acts, and adopt such course of treatment and operations, as in his judgment would be most likely to effect her ultimate cure and recovery, with the assent of the wife, and therefore that the operation in question was within the scope of the authority given him. They are also of opinion that the assent of the wife to the operation was to be presumed from the circumstances. Although it might have been an act of prudence in the plaintiff to give the defendant notice of the situation of the wife, and of his intention to perform a dangerous operation, yet we think he might safely trust to the judgment of the wife to give her husband notice from time to time of her situation and intentions, and that it was not necessary, in point of law, for the plaintiff to give such notice, or have any new request, in order to enable him to recover a reasonable compensation for his services. If the defendant intended to show that the operation was unecessary or improper, under the circumstances, or that it was unskilfully or carelessly performed, the burden of proof was on him. The performance of this operation being within the scope of the plaintiff's authority, if in his judgment necessary or expedient, and that it was so is to be presumed from the fact, it was not necessary for him to prove to the satisfaction of

the jury that it was necessary and proper, under the circumstances, or that before he performed it he gave notice to the defendant, or that it would be dangerous to the wife to wait before he performed it, till notice could be given to the plaintiff.

The Court of Common Pleas, before which the cause was tried, having expressed an opinion and directed the jury that these proofs were necessary to enable the plaintiff to recover a compensation for his professional services, this court is of opinion that that direction was wrong, that the exceptions be allowed, the verdict set aside, and a new trial had, and that the cause be remitted to the Court of Common Pleas for trial."

ALLEGED MALPRACTICE IN USING A BOUGIE.

Rex *v.* Van Butchell.[1]

"Manslaughter. The deceased, William Archer, labored under some disease of the rectum, for which the defendant passed a rectal bougie. After which deceased immediately took to his bed, and died seven days after the operation. An indictment was found, and defendant put upon his trial in Old Bailey, Session of 1829. The prosecution set forth that the defendant was not a regular surgeon, and proceeded to state that Lord Coke had said that, if one who is not a regular surgeon take upon him to cure a man, and the patient die, this is felony.

Hullock, B. It is so said in Lord Coke's Institutes, undoubtedly, but there has never been any decision of the kind.

On the part of the defence it was proposed to show, if it was essential, that the defendant had had a regular education. The court did not require it.

It was then proved by Mr. Lloyd that he opened the body of the deceased, and that he found a portion of the ileum

[1] 3 Carr. & P. 629.

adherent to the rectum, and that, on separating this adhesion, he discovered a small hole perforated through the rectum. Mr. Lloyd was cross-examined, with a view of showing that these appearances might have been the result of natural causes; and he stated that operations would sometimes fail, notwithstanding that they might be most skilfully performed; and he added that he himself had operated in extracting an encysted tumor from the breast of a woman, at a time when she was pregnant, and who soon afterwards died; and that he and many other surgeons thought that correct practice, though he admitted that the propriety of the operation was doubted by others.

The prosecution rested.

HULLOCK, B. I am free to confess that this does not even approach to a case of manslaughter. It would be dreadful if, every time an operation was performed, an individual was liable to have his practice questioned.

The defence then proposed showing that the defendant had a regular medical education.

HULLOCK, B. I do not think that that is at all material to the case.

It was also proposed to call a great number of patients whose cases had been most successfully treated by defendant.

HULLOCK, B. This is an indictment for manslaughter, and I am really afraid to let the case go on, lest an idea should be entertained that a man's practice may be questioned whenever an operation fails. In this case there is no evidence of the mode in which this operation was performed; and even assuming for the moment that it caused the death of the deceased, I am not aware of any law which says that this party can be found guilty of manslaughter. It is my opinion that it makes no difference whether the party be a regular or an irregular surgeon; indeed, in remote parts of the country, many persons would be left to die if irregular surgeons were not allowed to practise. There is no doubt that there may be cases where both regular and irregular

surgeons might be liable to an indictment, as there might be cases where, from the manner of the operation, even malice might be inferred. All that the law books have said has been read to you, but they do not state any decisions; and their silence in that respect goes to show what the uniform opinion of lawyers has been upon this subject. As to what is said by Lord Coke, he merely details an authority, a very old one, without expressing either approbation or disapprobation; however we find that Lord Hale has laid down what is the law on this subject. That is copied by Mr. Justice Blackstone, and no book in law goes any further. It may be that a person not legally qualified to practise as a surgeon may be liable to penalties;[1] but surely he cannot be liable to an indictment for felony. It is quite clear you may recover damages against a medical man for a want of skill; but, as Lord HALE says, 'God forbid that any mischance of this kind should make a person guilty of murder or manslaughter.' Such is the opinion of one of the greatest judges that ever adorned the bench of this country; and his proposition amounts to this: that if a person, *bonâ fide* and honestly exercising his best skill to cure a patient, performs an operation which causes the patient's death, he is not guilty of manslaughter. In the present case no evidence has been given respecting the operation itself. It might have been performed with the most proper instrument, and in the most proper manner, and yet might have failed. Mr. Lloyd has himself told us that he performed an operation, the propriety of which seems to have been a sort of *vexata quæstio* among the medical profession; but still it would be most dangerous for it to get abroad, that if an operation performed either by a licensed or unlicensed surgeon should fail, that surgeon would be liable to be prosecuted for manslaughter. I think that, in point of law, this prosecution cannot be sustained;

[1] The statutes by which these penalties are imposed, which are all of the reign of Henry VIII., are collected in Com. Dig. tit. Physician, and one of them (the St. 34 Hen. VIII. c. 8) has a preamble prefixed to it, which is anything but complimentary to the medical profession.

and I feel bound to say that no imputation whatever ought to be cast upon the gentleman who is now at the bar, in consequence of anything that has occurred.

Verdict, *Not guilty.*"

LYNCH *v.* DAVIS.[1]

"HARRIS, J. If the cause of action stated in the complaint is to be regarded as a breach of the obligation implied in the employment of the defendant as a physician, the right of action was vested in the plaintiff, as the husband of his wife, and not as administrator. The contract to perform his professional duty in a skilful manner was made with the husband, and not the wife.

In an action founded upon this breach of duty, the husband might recover the damages he had sustained by reason of the loss of the society and aid of his wife. It may not be improper to state, that at the same circuit at which this issue was tried, an action brought by the husband in his own right, for the same cause of *malpractice*, was brought to trial, and the plaintiff recovered such damages as the jury thought fit to award to him for the loss of his wife.

If the action had been founded upon the wrong committed by the defendant, and the personal suffering that resulted to the wife, she could not have sued alone, if living; but the husband must have been joined as plaintiff with her. 1 Chit. Pl. 73. It would indeed have been the action of the husband, though the wife, being the *meritorious cause*, must have been joined with him as plaintiff. Upon the death of the wife, the cause of action, so far as related to her, did not survive at common law.

The act of 1847 (Sess. Laws 1847, p. 575), upon which the plaintiff relies, only gives an action to the personal representatives of the person injured and dying, when the person so injured, if living, might have maintained an action and recovered damages for the same injury. The common

[1] Howard's Practice (New York), vol. 12, page 323.

law gave the husband and the father a right to recover of the wrong-doer the pecuniary injury he had sustained by reason of the killing of his wife or child. The husband had availed himself of this right of action, in this very case, to recover damages for the loss of his wife. The object of the act of 1847 was to extend the same rule to the wife and the child, so that they also might recover the pecuniary damages they had sustained by the wrongful killing of the husband or the father. Hence, the proper rule of damages in all such cases is to inquire what the party killed was worth to his family. The husband has already had the benefit of this same rule as applicable to the same injury of which he now complains. It would be an obvious perversion of the intention of the legislature to allow a second action to be sustained for precisely the same injury.

Nor is there anything in the language of the act referred to which would warrant such an action. The wife, if living, could not have sustained an action for the injury. The action, as we have seen, must have been either in favor of the husband alone, or the husband and wife as joint plaintiffs. The case is, therefore, neither within the terms nor the intent of the statute.

The demurrer must be allowed, and the complaint dismissed, with costs to be taxed."

In *Green* v. *Hudson River R. R. Co.* 2 Keyes, 294-297 (1866), New York Court of Appeals, the case cited *supra* is modified if not overruled.

CHOSE IN ACTION.

Long *v.* Morrison.[1]

"Perkins, J. James Long was called as a physician, to attend upon Mrs. Margaret Edmonds, wife of Joseph W. Edmonds. By malpractice, as is alleged, he caused her death.

[1] 14 Ind. 595.

Her husband, Joseph W. Edmonds, is still living. This fact is shown by the record to have entered as an element into the case. Lewis B. Morrison, as administrator of said Margaret, sued Long to recover damages for causing her death, and obtained judgment of $2,000.

The first question is, will the action lie? It will not lie, if founded on the tort, upon the common law.

The right of such action on the case, by that law, died with the person. Perk. Pr. 121; Ind. Dig. 100; 1 Hilliard on Torts (2d ed.), 93; *Carey* v. *The Berkshire Railroad Co.* 1 Cush. 478. And see *Lynch* v. *Davis*, 12 How. Pr. R. 323, cited in Abb. Pl. 375; and Reeve's Dom. Rel. 377. See this latter authority for a suggestion.

At common law two actions lie for personal injuries to married women, infants, and servants. One by the husband, father, or master, for the loss of service, &c.; the other by the husband and wife, the infant or servant, for the personal injury. *Bartley* v. *Ritchmyer*, 4 Comst. 38; *Robalina* v. *Armstrong*, 15 Barb. 249; 1 Starkie on Slander, 349; Ind. Dig. 28; *Hart* v. *Crow*, 7 Blackf. 351.

In the case at bar, then, the husband had a right of action for the loss of service, &c., sustained by him between the times of the commission of the injury and the death of the wife resulting therefrom. And if that right of action grew out of the breach of the contract for skilful service on the part of the physician, it survived the death of the wife. It was a chose in action. 2 Kent, 351.

And if the entire right of action in the case grew out of breach of contract (the tort consisting in negligent execution thereof), then, it would seem, the action by the husband, with whom was the contract, for the damages resulting from its breach, must exhaust the right to sue for that breach. But if, at common law, an action would lie for the wrong done to the wife, in addition to the separate suit by the husband for loss of service, &c., where the wife survived; and, further, if such right of action would be a chose in action, still our statute has not vested it in the wife any farther than

the common law did, because that statute only vests in her 'the personal property held by her at the time of her marriage, or acquired during coverture by descent, devise, or gift.' Acts of 1853, p. 57, § 5.

And at common law, as also still by our Code, husband and wife must join in suits for injuries, by third persons, to the person of the wife. Perk. Pr. pp. 136, 137. And the husband can settle and release such actions, at least when brought for injuries to the wife by malpractice. *Ballard* v. *Russell*, 33 Maine R. 196, cited in 2 Hill. on Torts, p. 591.

In *Merrill* v. *Smith*, 37 Maine R. 394, it was held that, under the Married Women's Act, the husband had a right to the earnings of the wife, and to property purchased with such earnings, as at common law.

In no aspect of the case at bar, then, could Mrs. Edmonds, if surviving, maintain a separate action against Long for the injury to obtain compensation for which this suit is prosecuted. Can her administrator maintain such a suit? If so, it is because the action is authorized by the Code. Is it thus authorized? It is enacted: —

'Sec. 27. A father, or, in case of his death, or desertion of his family, or imprisonment, the mother may maintain an action for the injury or death of a child; and a guardian for the injury or death of his ward. But when the action is brought by the guardian for an injury to his ward, the damages shall enure to the benefit of the ward.' 2 R. S. p. 33.

'Sec. 784. When the death of one is caused by the wrongful act or omission of another, the personal representatives of the former may maintain an action therefor against the latter, if the former might have maintained an action, had he lived, against the latter for an injury for the same act or omission. The action must be commenced within two years. The damages cannot exceed five thousand dollars, and must enure to the exclusive benefit of the widow and children, if any, or next of kin, to be distributed in the same manner as personal property of the deceased.' 2 R. S. p. 205.

Personal property, it may be remarked, of the deceased,

in certain contingencies might go to the husband. See 13 Ind. R. on p. 426.

The first point to be settled here is, was the death of Mrs. Edmonds caused by such a wrongful act as would have furnished a ground of action on account of personal injury to her had she survived? We hold the affirmative.

The act might have been sued for in tort by her, with her husband, had she survived, as it is now by her representative. 1 Chit. Pl. 134, 135.

This being the case, we inquire in whom would have been the right of action? It would have been in the husband and wife jointly, so long as they both lived, but would have existed in the wife alone on the death of the husband, the wife surviving. 1 Swann's Pr. 88, 89. Reeve's Dom. Rel. 63.

Now the above statute continues the right of action in the personal representative of a deceased, where the deceased might have sued if living; and two views here present themselves to the mind of the court as to the manner of this survivorship.

1st. Where the disability of coverture does not exist, the right of action exists in the injured party, and survives to the representative of such party; and, as death terminates the coverture, the right of action survives to the representative alone of the deceased in cases like the present. Some of the members of the court hold this position.

2d. The right of action may be regarded as continued by the statute in the personal representative just as it existed in the deceased. Hence, in this case, it caused the right of action to survive to the representative of the wife, as one to be prosecuted jointly with the surviving husband; though under the statute he would not have a right to settle the suit nor control the proceeds of it, independent of the administrator; as the statute declares the use to be made of the proceeds of the judgment to be recovered.

Under this view the conclusion would be, that the action is maintainable; but that it should have been brought in the

joint names of the husband and administrator. Nevertheless, under the Code, the non-joinder of the husband in this case will not be a ground of reversal, because it was not specially raised as an objection below.

On the trial the defendant proposed to impeach the character of the plaintiff's principal witness, by proof of a single act of immorality. Permission to do so was rightly refused. Proof should have been offered of his general character for morality. See *Shattuck* v. *Myers*, 13 Ind. R. 46.

In that case particular acts of immorality on the part of a witness were permitted; not for the purpose, however, of impeaching her moral character as a witness. The action was for seduction. The father, who brought the action, introduced the daughter as a witness; and it was held that while in her character, as witness, she could only be impeached in the usual mode, through general questions, yet, in her character as the immediately injured party, and the source of damages in the suit, immoral acts, showing that source to be impure, might be proved in mitigation of damages.

The court, on the trial of the case at bar, correctly instructed the jury on the question of liability of the physician for unskilfulness.

He was liable for damages arising as well from the want, as from the want of application, of skill.

'It is the party's own fault if he undertakes without having sufficient skill, or if he applies less than the occasion requires.' Story on Bailments, § 431. See *Conner* v. *Winton*, 8 Ind. R. 315; 3 Shars. Blacks. p. 122, and note, and p. 169.

On the subject of damages the court told the jury that the action was predicated 'upon the injury to the deceased; and the amount of damages should be compensatory for the injury, short of the loss of life, which the law cannot estimate; that the jury might consider the pain and suffering of the deceased, but not the suffering of her parents, nor the suffering nor loss of the husband; that vindictive damages could

not be given, nor an amount exceeding that laid in the complaint.'

On the question of damages in this class of cases the common law rule must prevail. Our statute differs materially from that of New York, under which *Oldfield* v. *The New York, &c. Co.* 4 Kern. 310, was decided.

Where the action is by the husband, or master, or parent, for their individual losses respectively, occasioned by tortious acts towards the wife, infant, child, or servant, the individual suffering of the immediate subject of the wrongful act cannot be taken into account in the assignment of damages. See *The Ohio, &c. Co.* v. *Tindall*, 13 Ind. R, 366.

The judgment is affirmed, with one per cent. damages and costs."

ALLEGED MALPRACTICE IN BATHING.

PERIONOWSKY *v.* FREEMAN & another.[1]

"COCKBURN, C. J., in summing up the case to the jury, observed that our great hospitals, supported as they were entirely by alms and voluntary subscriptions, could not be supported if they had to engage a staff of medical men sufficient to attend to all the minor incidents or details of medical or surgical operations which might be ordered, such as baths. It was indispensable that such matters should be left to the nurses, who were necessarily familiar with them; and it had been satisfactorily proved by the testimony of some of the most eminent medical attendants of our hospitals that such was the ordinary and usual course of hospital practice. That being so, the question was, whether the defendants had been present when the man was put in the bath, or were near enough to observe what had occurred, which it was probable had been greatly exaggerated. It was well known that medical men were always anxious that no unnecessary pain should be inflicted upon their patients; and it was incredible

[1] Foster & Finlason, vol. 4, p. 977.

that they should have allowed the man to be treated in their presence as had been described by him. This would be to impute to them a gross and senseless inhumanity which passed all the bounds and limits of probability. The defendants would not be liable for the negligence of the nurses, unless near enough to be aware of it and to prevent it. And though the plaintiff might have sustained some amount of injury, still a verdict was not to be given against the defendants unless they were personally responsible for it. And the statement of the plaintiff on that point was not supported, and was distinctly contradicted. No doubt, persons who went as patients into hospitals were not to be treated with negligence; but on the other hand, medical gentlemen who gave their service gratuitously were not to be made liable for negligence for which they were not personally responsible. *Jury returned verdict for defendants.*"

ALLEGED MALPRACTICE IN VACCINATION.

LANDON *v.* HUMPHREY.[1]

"DAGGETT, J. There were two objections made at the trial: 1. To the admission in evidence of the writing called a contract, signed by the defendant and other physicians of the town of Salisbury; 2. To the charge of the judge to the jury.

1. The writing was admitted, as part of the proof, to show that the defendant had, by an arrangement with the other physicians, assumed the duty of inoculating the inhabitants of the town; and that the defendant's district embraced the plaintiff. It was offered in connection with other proof by parol, that this was the agreement of the defendant; and that Rollin Sprague was his agent in performing this duty. The court has found, that the proof of the undertaking of the defendant to inoculate all those who should offer in his district was satisfactory, without the writing.

[1] 9 Conn. 209.

The utmost that can be objected to this writing is, that it was unnecessary. But surely it would be worse than useless to send the cause again to trial on such an objection. But be this as it may, the facts in the first count were submitted to the jury, in the charge of the judge. Suppose then that there is a material variance between the writings set up in the two last counts and the one offered in proof; if the proof is sufficient to support the first count without the writing, and that first count be sufficient, it all stands well; for the verdict may be applied to that count. In any view, then, the first objection cannot prevail.

2. But an objection is made to the charge. The defendant prayed the court to charge the jury, that unless the plaintiff had proved the defendant guilty of *great* and *gross* negligence in vaccinating the plaintiff, she could not recover. The court told the jury, on this point, that if there was either *carelessness, or a want of ordinary diligence, care*, and *skill*, then the plaintiff was entitled to recover. The principle laid down by the court below, is entirely correct. The doctrine in 3 Bla. Comm. 165, is, that any one who undertakes any office, employment, duty, or trust, contracts to perform it with integrity, diligence, and skill; and if by the want of either of those qualities any injury accrues to individuals, they have their remedy in damages, by special action on the case. This is the doctrine in *Slater* v. *Baker*, 2 Wils. 359; *Seare* v. *Prentice*, 8 East, 352, and *Sumner* v. *Utley*, 7 Conn. Rep. 263. It is believed that all the elementary treatises agree substantially. The case was put to the jury as favorably for the defendants as the law would justify. If in the performance of the operation there was a want of *ordinary* diligence, care, and skill, or if there was *carelessness*, then he was liable.

The motion for a new trial must be denied.[1]

The other judges were of the same opinion."

[1] In *Crosby* v. *Fitch*, 12 Conn. 423, the court say: "Statements in motions for new trials, upon the authority of a similar one in *Landon* v. *Humphrey*, 9 Conn. 209, have sometimes been made (that certain facts were satisfactorily proved by

The character of the alleged malpractice, in the case cited *supra*, is not shown in the record. The questions claiming attention in vaccination are:—

1. Source from which virus is obtained.
2. Freshness of virus.
3. Condition of instrument with which the operation is performed.
4. Point of body at which virus is inserted.
5. Results that sometimes follow the greatest skill and care.

1. Virus should be taken from healthy subjects, especially from subjects free from syphilitic diseases. When preserved for future use should be inclosed air-tight, and have accompanying a record of name of person from whom taken, time when taken, and name of physician by whom taken.

2. While it would not be bad practice to use virus qualified as above, after several years, freshness will add more certainty to its action.

3. Instruments should be *clean*.

4. The usual point is at the insertion of *left* deltoid muscle, in *right-handed* subjects, and *vice versa*. This for the reason that bad results may follow the use of good virus with proper instruments, and the upper extremity of the least use should be subject to the risk.

5. Erysipelas and other severe forms of inflammation, which are generally referred to diseased virus, more properly in a vast majority of cases should be referred to a vicious condition of patients' system.

other testimony), yet upon more reflection we are led to doubt the propriety of this practice, and decide not to regard it in future."

ALLEGED MALPRACTICE IN THE TREATMENT OF A FELON.

TWOMBLY & wife *v.* LEACH.[1]

"MERRICK, J. The bill of exceptions discloses several questions arising both from the admission of evidence, to which the defendant objected, and from the rejection of evidence which he offered to produce.

1. The inquiry as to the effect, upon the minds of the witness, her mother, and family, of the remarks said to have been made by the defendant concerning Dr. Kimball, was wholly immaterial.

There was no evidence in the case that the plaintiffs ever desired to call Dr. Kimball, either for aid or consultation; and it does not appear from anything stated in the bill of exceptions that the expediency or need of employing another physician was ever spoken of, or thought of by the witness, the patient, or any member of her family.

2. The evidence of the effect of sugar of lead water upon the hand and wrist of the witness ought not to have been admitted. The propriety of its application to the patient and its effect upon her, were the proper and only material subjects of inquiry; and its effect upon another person, free from the disease to which the patient was subjected, was quite irrelevant. Remedial agents may undoubtedly very often prove injurious if improperly used; and the more efficient they are, the more mischievous are likely to be the results of their misapplication.

3. The testimony that the husband of plaintiff was an invalid, dependent for his support upon the labor of his wife, should have been excluded. The suggestion in the written argument of the plaintiff's counsel, that it was admissible, because the action was brought to recover damages for the loss of his wife's services, seems to be founded upon a misapprehension of what the allegations in the declaration are. It certainly does not appear from the bill of exceptions that the action is brought for the purpose stated.

[1] 11 Cush. 397.

4. The testimony of Miss Twombly respecting the time when she first heard of the punctured wound was immaterial, and ought not to have been received upon either of the grounds upon which it is claimed to have been admissible.

It had no tendency to contradict any part of the reported testimony of Dr. Jenness; and it does not appear that the defendant, either before or after his attendance upon the patient, assigned this as the cause of the disease in her thumb.

The physicians who were witnesses upon the trial expressed the opinion that a punctured wound was one of several causes, which might produce or result in a whitlow or felon; but no evidence was offered to show that the defendant did or did not entertain a similar opinion.

5. The interrogatory, 'Is it good medical practice to say you open a thumb to cut off a nerve because it is already partly cut off,' should not, against objection, have been allowed to be put to the witness. The terms of the question certainly involve no medical act or practice whatever, but only a reason assigned for an act. It was so framed as to be likely to mislead the witness, and his reported reply shows that it did mislead him.

The physicians and surgeons should have been allowed to testify in reply to the several interrogatories proposed by the defendant, which were held by the presiding judge to be inadmissible.

1. Evidence having been introduced on the part of the plaintiffs that the defendant spoke of cutting off the nerve, when he made the incision into the patient's thumb, it was competent for him, in order to show the signification of the word, and to explain what he himself meant thereby to prove, that physicians and surgeons, in communicating with their patients and other persons not professionally educated, use it to express either the *fascia* and *sheath* of a tendon, or the tendon itself. *Birch* v. *Depeyster*, 1 Stark. R. 210; 1 Greenl. Ev. § 280.

2. The only objection taken by the plaintiffs to the second question was, that the answer might tend to mislead the jury,

because it was not pointed with sufficient directness to the case treated by the defendant. Yet, though not thus particular in its form, its object could not have been mistaken, and the general current of inquiry must have made it applicable to the matter immediately in issue. Besides; it would have been quite allowable to show in the first place what was the general rule, and then to add proof that the case treated by the defendant came within it. Upon the question whether it be good medical practice to withhold from a patient in a particular emergency, or under given or supposed circumstances, a knowledge of the extent and danger of his disease, the testimony of educated and experienced medical practitioners is material and peculiarly appropriate.

3. The objection of the plaintiffs to the third and fifth questions, that the opinions sought for were upon only a part of the case, ought not to have prevailed. The court could not foresee that the jury would not take the testimony of Lucinda P. Twombly to be true, to the exclusion of the statements of all other witnesses, if in fact there was any diversity of statement in relation to the disease, the symptoms manifested, or the treatment prescribed by the defendant; and therefore he had a right to show that, assuming her whole narrative to be strictly accurate, his management of the case was skilful, judicious, and correct.

4. For a similar reason the defendant should have been permitted to propose the remaining question, which is clearly within the rule respecting the admissibility of the opinion of experts. The replies of the medical witnesses would have been merely evidence to be considered, and thereupon allowed the effect to which they were justly entitled, and not, as is urged by the plaintiffs' counsel, a substitution of the theories of experts for the judgment of the jury.

New trial granted."

It has doubtless occurred to all surgeons of a few years' experience, that they have at some time been consulted for an inflammation upon a finger, which they have diagnosed a

felon. Freely incised they find but a little sanious pus, and that just beneath the skin, and the case has gone on to be a true gangrenous erysipelas instead of a simple phlegmonous abscess. The result of the disease is almost necessarily more or less permanent contraction of the fingers, if not in entire loss of one or more fingers or loss of the entire hand.

Such cases do occur and the highest skill of man is not sufficient to determine it, at first.

Lead-water and opium are of constant use in the treatment of inflammations, and although not agencies of very great value, are incapable of doing harm, when used in moderation.

Should patients be informed of their true condition in every case, or, in other words, should they be informed as to the probable result of their illness? They should not, unless it be in exceptional cases. Such information will only end in harm, both to the patient and the medical attendant, and should therefore be withheld.

ALLEGED MALPRACTICE IN TREATMENT OF ERYSIPELAS.

COCHRAN *v.* MILLER.[1]

"WRIGHT, J. I. It is first objected that the court erred in overruling the appellant's objection to certain interrogatories to the witness Rawson, and the answers thereto. Rawson was a physician. Plaintiff claims that defendant was guilty of negligence and malpractice in prescribing for and treating her arm. Rawson, the witness, did not see the arm for some time after this treatment.

It was material, on the trial, to account for the scar found on the limb, and the contraction of some of the muscles. It seems, that at the time of the treatment, the plaintiff was thought to have erysipelas. The witness was asked, 'Whether or not the scar and contraction on the arm could not or would not be the legitimate result of erysipelas.'

[1] 13 Iowa, 128.

This was objected to as leading and irrelevant. Several other questions of the same character were objected to on the same grounds.

The objections were correctly overruled. In view of the issue made, no testimony could certainly be more material or relevant than that sought to be elicited by the inquiry. The question is far from being well propounded, in view of the testimony sought, but the defect strikes the plaintiff and not the defendant. If any answer is suggested by the inquiry, it is one against the party asking the question, and not in his favor. The witness could not fairly nor reasonably conclude that he was expected to state that something else than erysipelas had produced the scar and contraction. The question was not leading.

II. It seems that defendant claimed that other medicines were applied than those prescribed by him.

The father of plaintiff was asked: 'Whether or not he would most likely have known of the application of any other medicines than those applied by the defendant, if they had been applied to the arm.' It is objected that this interrogatory called for the *opinion* of the witness on a matter of fact, and was therefore objectionable. The position is not tenable. The plaintiff was living in her father's house. He had abundant means of knowing the treatment she received. His answer to this question would be no more objectionable, upon the ground of containing an *opinion* instead of a *fact*, than if he stated that defendant had prescribed and given medicine for the disease. The inquiry is a very common one, and one that may be fairly and legitimately made under the precise circumstances as here disclosed. Were other medicines applied? Plaintiff says not, and to maintain, so to speak, this negative, she makes this inquiry of one who had ample means of knowing.

III. The following instruction, given at the request of the plaintiff, was objected to: 'If you further find that the contraction and scar, and deformity of the arm of plaintiff, was occasioned by the improper treatment of plaintiff by defend-

ant, and the application of improper remedies, then you are not restricted to the actual damages plaintiff has sustained, but may give such further damages as in your judgment would be proper under the circumstances of the case.'

Plaintiff seeks to recover of defendant, not alone for the non-fulfilment of his contract, but for his gross negligence in the treatment of the disease which he had undertaken to treat. If there was such negligence and inattention (all of which the court had previously explained), then the instruction was certainly not objectionable. The language used is not so definite as it might have been, and perhaps should have been, if defendant had asked it. But it does not assert an improper rule of damages, and this is the extent of the objection to it.

IV. If it affirmatively appeared that all of the testimony was before us, we should very strongly incline to the conclusion that the verdict was not warranted. This is not shown, however, and the judgment must stand. *Affirmed.*"

CHAPTER XIII.

MALPRACTICE IN MEDICAL CASES.

REX *v.* ST. JOHN LONG.[1]

(Old Bailey, 1830.)

"MANSLAUGHTER. The indictment charged that the defendant, by the application of a certain inflammatory and dangerous liquid, secretly prepared, mixed, and made by him, to the back of one Catherine Cashin, caused a mortal inflammation and wound, under which the deceased languished from the 3d of August to the 17th of August, 1830, and then died. There were other counts, all in nearly the same form; in some of which the death was stated to be from the inflammation and wound; and in others from the sickness. There was no count, however, which expressly imputed either negligence, carelessness, ignorance, or want of skill to the defendant.

Alley, for the prosecution, in his opening, stated, that he imputed it to Mr. Long, that, by gross misconduct, he had produced an inflammation which had caused the death of Miss Catherine Cashin. The act was done by a servant of Mr. Long, by his directions; but, as the servant was only an innocent agent, Mr. Long was to be considered as the principal, exactly the same as if he had done it himself. He did not impute anything to Mr. Long, on the ground of his not being a regular medical practitioner. He asked for judgment against Mr. Long, on the broad principle that he was no more responsible than the first medical practitioner in the kingdom; but still, if any man, by an unlawful act, should

[1] 4 Carr. & P. 398.

cause death, it was manslaughter. This was distinctly laid down by Mr. Justice Foster, Cr. L. 261, who said: 'If an action, unlawful in itself, be done deliberately, or with intention of mischief, or great bodily harm to particulars, or of mischief indiscriminately, fall it where it may, and death ensue, against or beside the original intention of the party, it will be murder; but if such mischievous intention does not appear, which is matter of fact, and to be collected from circumstances, and the act was done heedlessly and incautiously, it will be manslaughter; not accidental death, because the act upon which death ensued was unlawful.'

There was also another proposition of law, which was, that if, in the prosecution of any lawful act, anything were done which was imprudent, irregular, or improper, and death ensued, it would be manslaughter; and it was laid down by Mr. Justice Foster, Cr. L. 262, that 'It is not sufficient that the act upon which death ensueth be lawful or innocent; it must be done in a proper manner, and with due caution to prevent mischief.' The most common case of this kind was that of a coachman driving fast in the streets. He had no bad intent, but the act being done with irregularity, he would be guilty of manslaughter if death ensued. To apply this principle to the case of medical men, it would stand thus: They, whatever their skill, must use due caution; but there was no doubt that considerable latitude must be allowed them. In modern times, poisons were exhibited as medicines in certain cases; but if, in the hurry of the moment, the medical man were to give fifty grains instead of one, he would be guilty of manslaughter, if death ensued. So, a surgeon had a right to amputate a limb; but if, in a hurry to go elsewhere, he left the arteries imperfectly secured, and death ensued, he would also be guilty of manslaughter. It might be said that, in this case, the consent of Miss Cashin was given to all that was done; but still, no one could permit another to do that which was criminal. Persons could not give a consent to put their own lives in danger.

It appeared from the evidence of Mr. Sweetman that two of the family of Mrs. Cashin had died of consumption; but that Miss Cashin, who was twenty-four years of age, had enjoyed good health; and that Mr. Long told him, that he (Mr. L.) had informed a young lady, that unless Miss Cashin put herself under his care, she would die of consumption in two or three months; and that, on this being communicated to Mrs. Cashin, she placed her daughter under Mr. Long's course of treatment, hoping to prevent her having a consumption. Mr. Sweetman also stated, that Mr. Long told him that he rubbed a mixture on different parts of the bodies of his patients, and that this had been applied to Miss Cashin. It was proved by Mrs. Roddis, who was also a witness for the prosecution, that she, on Friday, the 13th of August, went with Miss Cashin to Mr. Long's, respecting a wound on her back, and that Miss Cashin then inhaled; and that on the next day Mr. Long examined Miss Cashin's back, and said it was in a beautiful state, and that he would give one hundred guineas if he could produce a similar wound on the persons of some of his patients. Mrs. Roddis stated, that she directed Mr. Long's attention to a part of the wound which was of a darker appearance, and that he stated that this proceeded from the inhaling; and that, unless those consequences were produced, he could expect no beneficial result. The wound at this time was about five or six inches square. Mrs. Roddis further stated, that Miss Cashin was suffering much from sickness, and that she mentioned this to Mr. Long, who said that it was of no consequence, but, on the contrary, a benefit; and that those symptoms, combined with the wound, were a proof that his system was taking due effect; and that on Sunday, the 15th, Miss Cashin having got worse, Mr. Long said that in two or three day she would be in better health than she had ever been in her life, and spoke very confidently that the result of his system would be to prolong her life; and that no person could be doing better than Miss Cashin was. At this interview Mrs. Roddis showed Mr. Long the wound on Miss Cashin's back,

which had extended. Mrs. Roddis also stated, that Mr. Long, on Sunday, the 15th, was desired to do something to stop the sickness of Miss Cashin, but that he said he had a remedy in his pocket, which he would not apply, as he knew that sickness had been beneficial; and he also stated on that day, and on Monday, the 16th, that Miss Cashin was doing uncommonly well. On Tuesday, the 17th, she died.

It was proved by Mr. Brodie, the surgeon, that he saw Miss Cashin on Monday, the 16th, and that her back was extensively inflamed, as large as a plate; and that, in the centre was a spot, as large as the palm of his hand, black and dead, which was in a sloughing or mortified state. Mr. Brodie stated, that he did not consider Miss Cashin to be in any immediate danger, and that he thought that some very powerfully stimulating liniment had been applied to her back. In his cross-examination he said, that it was very common to produce a counter irritation, and that the things used to make that produce different effects on different constitutions; but, in reëxamination, he stated, that applying a lotion of strength capable of causing the appearances he saw, to a person of the age and constitution of the deceased, if in perfect health, was likely to damage the constitution and produce disease and danger. Mr. Brodie also stated, that the appearances on Miss Cashin's back were quite sufficient to account for her death. Several medical men, who had examined the body of the deceased, stated that, on the most careful examination, they could not discover any latent disease, or seeds of disease. A servant of Mr. Long, named Ann Dyke, proved that on the 3d of August, she, by direction of Mr. Long, rubbed Miss Cashin's back with a liquid, but that she did not know what that liquid was. In her cross-examination, she stated that Mr. Long had a great many patients, many of them persons of rank, and that she rubbed Miss Cashin with the same liquid that was used for the other patients.

Gurney, for the defence, proposed to ask whether a greater effect was produced on Miss Cashin, than on other persons.

Alley, for the prosecution, objected that this was not evidence; for, that unless the liquid was the same, and the person in the same state of constitution, it amounted to nothing.

Gurney. Nothing is more clear than that this is an unobjectionable question. A person is charged with doing something which has done mischief. Now, if I show that the same thing was applied to other persons, and show the effects of it, it will turn out that what was the medicine of health to one was the medicine of disease to another. I shall show that the same thing was used, and shall call the other persons to prove that it had a good effect upon them.

Alley, *contra*. The single question is, whether Mr. Long has committed an offence, with respect to this young woman. It is not in issue whether he has done good or not in other cases. See the extent to which this would go. If he had ten thousand patients dead, could I call their friends to prove that they died under his hands? If I could not, he cannot call other patients on the other side; and besides, we can have no insight of what was done by him towards his other patients.

Mr. Justice PARK and Mr. Baron GARROW held that the question might be put, and that the witness might be asked the names of the persons who attended at the same time, and were treated in the same manner as Miss Cashin. The witness stated that the Marchioness of Ormond and Lady Harriet Butler were at Mr. Long's at the same time as Miss Cashin; and that the same lotion was applied to them, and also to Mrs. Ottley, and many others.

Gurney, *Andrews*, Serjt., *& Adolphus*, for the defence, submitted that, in point of law, this was nothing like a case of manslaughter; and they cited and relied on 1 Hale's P. C. 429; 4 Bl. Com. b. 4, c. 14; and *Rex* v. *Van Butchell*, 3 Carrington & Payne, 629; and argued that it was quite clear that Mr. Long intended to prevent or cure disease.

Mr. Justice PARK. I am in this difficulty. I have an opinion, and my learned brother differs from me. I must therefore let the case go to the jury.

Mr. Baron GARROW. In *Rex* v. *Van Butchell*, the learned judge had very good ground to stop the case, as there was no evidence as to what had been done. I make no distinction between the case of a person who consults the most eminent physician, and the cases of those whose necessities or whose folly may carry them into any other quarter. It matters not whether the individual consulted be the president of the College of Physicians, the president of the College of Surgeons, or the humblest bone-setter of the village; but be it one or the other, he ought to bring into the case ordinary care, skill, and diligence. Why is it we convict in cases of death by driving carriages? Because the parties are bound to have skill, care, and caution. I am of opinion, that if a person who has ever so much or so little skill sets my leg, and does it as well as he can, and does it badly, he is excused; but suppose the person comes drunk and gives me a tumbler full of laudanum, and sends me into the other world, is it not manslaughter? And why is that? Because I have a right to have reasonable care and caution.

Alley. There was a case on the Northern Circuit, where a man, who was drunk, went and delivered a woman, who, by his mismanagement, died; and he was sentenced to six months' imprisonment.

For the defence, twenty-nine witnesses were called, including the Marchioness of Ormond and Mrs. Ottley, who stated that they had been patients of Mr. Long, and that they were satisfied with his skill and diligence. One of the witnesses said he would never cease to pray for Mr. Long as long as he lived. Another (a lady) said, that she could never be sufficiently thankful to him for what he had done for her family. And another was a surgeon, who had lived in Jamaica for thirty-six years, and he expressed himself perfectly satisfied with Mr. Long's treatment and conduct.

Mr. Justice PARK, in summing up: The learned counsel for the prosecution truly stated, in the outset, that whether the party be licensed or unlicensed is of no consequence, except in this respect, that he may be subject to pecuniary pen-

alties for acting contrary to charters or acts of Parliament. But it cannot affect him here. For this, I have the authority of that great and eminent person, Lord Chief Justice HALE, who has expressly said, that, though physicians and surgeons, if they are not licensed, may be subject to penalties, yet they are not answerable criminally on that account. His phrase is, 'God forbid that any mischance of this kind should make a person guilty of murder or manslaughter.' And, therefore, licensed or unlicensed, certainly does not signify. I agree with my learned brother, that what is called *mala praxis* in a medical person is a misdemeanor; but that depends upon whether the practice he has used is so bad that everybody will see that it is *mala praxis*. The case at Lancaster differs from this. I have communicated with Lord Chief Justice Tindal, who tried that case, and he informed me that the man was a blacksmith, and was drunk, and was so completely ignorant of the proper steps that he totally neglected what was absolutely necessary after the birth of the child. That certainly was one of the most outrageous cases that ever came into a court of justice. I would rather use the words of my Lord ELLENBOROUGH, in the case of *Rex* v. *Williamson*, 3 Carr. & P. 635. He says: 'That a medical man is not to be charged with manslaughter unless he has been guilty of criminal misconduct, arising either from the grossest ignorance or the most criminal inattention.' And this is important here; for, though he be not licensed, yet experience may teach a man sufficient; and the question for you will, by and by, be, whether the experience this individual acquired does not negative the supposition of any gross ignorance or criminal inattention. The case quoted from the Institutes of Lord Coke, who lived upwards of two hundred years ago, occurred at a time when there were very few cases of the kind, and was deemed to be a case of manslaughter. But I do not derogate from his high and illustrious character, when, as far as criminal law is concerned, I set against it the authority of my Lord Chief Justice HALE, on whom, when authority is quoted, reliance is always placed. He says: 'If a physician

gives a person a potion without any intent of doing him any bodily hurt, but with an intent to cure or prevent a disease, and, contrary to the expectation of the physician, it kills him, this is no homicide; and the like of a chirurgeon.' And he quotes the Year Book, 3 Edw. 3. And he goes on to say: 'And I hold their opinion to be erroneous' (evidently alluding to my Lord Coke), 'who think if he be no licensed chirurgeon or physician that occasioneth this mischance, that then it is felony; for physic and salves were before licensed physicians and chirurgeons.' And he proceeds further and says: 'These opinions may serve to caution ignorant people not to be too busy in this kind with tampering with physic, but are no safe rules for a judge or jury to go by.' I say the same, that the public weal is deeply interested in preventing ignorant persons from tampering with these subjects. It is true, his next reason, about the want of surgeons in the country, does not apply here; because, in London, all persons can obtain the assistance of the best men, however poor they are. The question is, whether there was gross ignorance in this gentleman, or scandalous inattention in the treatment of this lady. The opinion of Lord Chief Justice Hale is recorded and adopted in Sir Edward East's Pleas of the Crown, and in Mr. Justice Blackstone's Commentaries. I come now to the case of Van Butchell, decided here only twelve months ago, by Mr. Baron Hullock, of whom it may be said, that a sounder lawyer or a stronger-headed man never was known in the profession. I quote this case rather to show you what that learned person's strong opinion was upon the general question, on the danger, not of punishing the man found guilty of gross negligence, but whether his practice can be questioned whenever an operation happens to fail. He says: 'It is my opinion, that it makes no difference whether the party be a regular or an irregular surgeon.' And also: 'There is no doubt that there may be cases where both regular and irregular surgeons might be liable to an indictment, as there might be cases where, from the manner of the operation, even malice might be inferred.' I agree with him that there may

be such cases as those he has first mentioned; and you will have to decide, by and by, whether this case is one of them or not. I wish also to state to you what Lord Ellenborough said in the case of *The King* v. *Williamson*, which was the case of a man who acted as a man-midwife. 3 Carr. & P. 635.[1] Lord Ellenborough there says, that from the evidence it appeared that the prisoner had delivered many women at different times, and from this he must have had some degree of skill. He goes along with me in thinking that skill may be acquired by practice. That is my opinion

[1] In the case of *Rex* v. *Simpson*, reported in Willcock on the Laws relating to the Medical Profession, Append. 227, the prisoner was indicted for manslaughter. It appeared that the deceased, a sailor, had been discharged from the Liverpool Infirmary as cured, after undergoing salivation, and that he was recommended by another patient to go to the prisoner for an emetic, to get the mercury out of his bones. The prisoner was an old woman, who resided at Liverpool, and occasionally dealt in medicine. She gave him a solution of white vitriol, or corrosive sublimate, one dose of which caused death; and she said she had received the mixture from a person who came from Ireland, and had gone back. And in that case, Mr. Justice Bayley said: "I take it to be quite clear, that if a person, not of medical education, in a case where professional aid might be obtained, undertakes to administer medicine which may have a dangerous effect, and thereby occasions death, such person is guilty of manslaughter. He may have no evil intention, and may have a good one, but he has no right to hazard the consequence in a case where medical assistance may be obtained. If he does so, it is at his peril. It is immaterial whether the person administering the medicine prepares it or gets it from another." The prisoner was convicted.

In 1 Cur. Hawk. 104, it is said: "That it hath been anciently holden, that if a person not duly authorized to be a physician or surgeon undertakes a case, and the patient die under his hand, he is guilty of felony; but inasmuch as the books wherein this opinion is holden were written before the statute of 23 Hen. 8, c. 1, which first excluded such felonious killing as may be called wilful murder of malice *prepense* from the benefit of clergy, it may be well questioned whether such killing shall be said to be of malice *prepense* within the meaning of that statute. However, it is certainly highly rash and presumptuous for unskilful persons to undertake matters of this nature; and, indeed, the law cannot well be too severe in this case, in order to deter ignorant people from endeavoring to get a livelihood by such practice, which cannot be followed without the manifest hazard of the lives of those who have to do with them; but surely the charitable endeavors of those gentlemen who study to qualify themselves to give advice of this kind in order to assist their poor neighbors can by no means deserve so severe a construction from their happening to fall into some mistake in their prescriptions, from which the most learned and experienced cannot always be secure." Note, 4 Carr. & P. 407.

here, and there are twenty-nine witnesses all speaking to the prisoner's skill in their cases. There is clear proof that the prisoner did the act which shortened Miss Cashin's life. But that does not prove the case, unless you think that there was gross ignorance or inattention to human life inferred from it. It is evident he had some information; whether he drew improper conclusions from it is not for you or me to say. It seems, from Mr. Sweetman's evidence, that the disorder had been in the family; that a son was dead, and a daughter was likely to die. The prisoner always said that his remedy would cure consumption; and, if the disease had not been in the family, she would not have sent to him at all. The prisoner's counsel could not by law ask the defendant's witnesses any questions as to their respective disorders, and the mode of cure, as my brother and I were of opinion that it was not evidence. All that was evidence was, that he had displayed so much skill in other cases as to show that he was not that grossly ignorant or inattentive person who could be guilty of manslaughter according to my Lord Ellenborough's opinion in the case before mentioned. The refusal of the prisoner to apply the medicine, in order to stop the sickness, although he had it with him, would in my opinion, if wickedly done, amount to murder; but he mentioned a case in which sickness had been beneficial. Undoubtedly, the result proves a very erroneous opinion on his part; and it seems singular that the restlessness and other circumstances did not awaken apprehension and call for further measures. But the question again recurs, whether this was an erroneous judgment of a person who was of general competency, though he unfortunately failed in the particular instance. It appears that he said, on examining the wound on Miss Cashin's back, that he would give one hundred guineas if he could produce a similar wound in some of his patients. This seems to show his confidence in his proceedings. And there is this observation to be made of him throughout, that he seems to have been living in a fashionable part of the metropolis, and attended by right honorable persons; and it would be against

his interest to act ignorantly and carelessly. It appears, with respect to Miss Cashin, that he did not go to seek her out, and this will be for you to take into your consideration. With respect to the application of the mixture, if he commanded the woman to use it, it is the same as if he had used it himself. Perhaps, from the evidence, you will think that the act caused the death; but still the question recurs, as to whether it was done either from gross ignorance or criminal inattention. No one doubts Mr. Brodie's skill, but that is not the question; it is not whether the act done is the thing that a person of Mr. Brodie's great skill would do, but whether it shows such total and gross ignorance in the person who did it, as must necessarily produce such a result. On the one hand, we must be careful and most anxious to prevent people from tampering in physic, so as to trifle with the life of man; and, on the other hand, we must take care not to charge criminally a person who is of general skill, because he has been unfortunate in a particular case. It is God that gives, man only administers, medicine, and the medicine that the most skilful may administer may not be productive of the expected effect; but it would be a dreadful thing if a man were called in question criminally whenever he happened to miscarry in his practice. These are things for your consideration when you are considering whether a man is acting wickedly; for I call it acting wickedly when a man is grossly ignorant and yet affects to cure people, or when he is grossly inattentive to their safety. With respect to the evidence on the part of the prisoner, all the witnesses that he has called have spoken as being perfectly satisfied with his skill, attention, and behavior in every respect. It is observable of several of them, that, after their families had been attended, they put themselves under his care, so satisfied were they with his conduct. One of them says, that he shall pray for him as long as he lives; and another, a lady, says she can never sufficiently thank him for what he has done for her family. It is also to be remarked, that one of these witnesses is himself a surgeon, who lived for thirty-six years in a hot

climate, and he expresses himself perfectly satisfied. You will take the whole case into your consideration, and if you think there was gross ignorance or scandalous inattention in the conduct of the prisoner, then you will find him guilty; and if you do not think so, then your verdict will be otherwise.

The jury, after some deliberation, found the prisoner guilty, and he was subsequently sentenced to pay a fine of £250 to the king."

Alley & C. Phillips, for the prosecution.

Gurney, *Andrews*, Serjt., & *Adolphus*, for the prisoner.

Rex *v.* St. John Long.[1]

(Old Bailey, 1831.)

"Manslaughter. The eight first counts of the indictment stated that the defendant, on the 6th day of October and on divers other days and times between that day and the 12th of October, *feloniously* caused Colin Campbell Lloyd, the wife of Edward Lloyd, to inhale certain noxious and injurious vapors, and that with a certain corrosive, inflammatory, and dangerous liquid, *secretly prepared*, mixed, and made by him, did rub, wash, and sponge, &c., &c., the breast and chest of the said Colin Campbell Lloyd, which made and produced one mortal sore and ulcer in and upon her breast and chest, of the length of sixteen inches, of the width of nine inches, and of the depth of two inches, by which she became mortally sick, and languished till the 8th day of November, and then died, and that he the said Colin Campbell Lloyd, in manner aforesaid, did kill and slay.

The ninth and tenth counts contained an allegation, that the prisoner applied the liquid to the chest, he 'well knowing the said liquid to be inflammatory and dangerous in that behalf;' and described the chest as becoming 'mortally inflamed, ulcerated, and gangrened all over the same.'

Plea. Not guilty.

Denman, A. G., in opening the case for the prosecution,

[1] 4 Carr. & P. 423.

stated that he should not offer any particular evidence as to the inhaling, as it did not appear, as far as they were able to judge, to be in any way the cause of the death, which appeared to be solely occasioned by the application of the mixture. If the facts were made out, the question would arise whether the prisoner was guilty of manslaughter. The charge against him was not of acting with malice aforethought, but of applying himself to the treatment of the case of which he knew nothing, and of using a most dangerous liquid, with the effect of which, in the judgment of charity, he must be supposed to have been unacquainted. If, with gross ignorance of the subject, he, with the desire of gain, undertook the case, and, in consequence, death ensued, it would be clearly a homicide, by no means either justifiable or excusable. The law admitted of no doubt. If a party, grossly ignorant, undertook to deal with deadly remedies, without knowing the effect they would produce, he was answerable criminally, if they occasioned death. The question whether regularly educated or not, did not apply. A regular medical education might furnish a defence which an uneducated person could not have, but the absence of such education certainly did not make a person guilty. The only question was, whether, in point of fact, the prisoner was ignorant of that which he was about, and whether that ignorance was the cause of his patient's death. If a man in the most extensive practice were to take cognizance of a particular case, of which, by his treatment, he showed that he was clearly ignorant, his great practice would not be any excuse.

The witnesses called on the part of the prosecution were Capt. Lloyd, the husband of the deceased; Mrs. Campbell, a relation, at whose house she was staying; Mr. Campbell, Mr. Vance, Mr. Brodie, and Mr. Frankum, surgeons.

From the examination in chief of Capt. Lloyd, the following facts appeared: The deceased for several years had been troubled occasionally, when she caught cold, or anything excited her, with a choking sensation in the throat, for which she had, about three years before her death, consulted a med-

ical man, and for which she was in the habit of applying a blister to the throat, and afterwards of healing the wound with a simple dressing of spermaceti ointment. A son of the deceased was under the care of Mr. Long; and on various occasions, when the deceased attended with her son, she mentioned, in conversation with Mr. Long, the complaint she had in her throat; and the conversations eventually led to her putting herself under his care on the 6th day of October, 1830, at which time she was in very good general health. On the 3d of October she had applied a small blister to her throat, but the wound occasioned by it was nearly well on the 6th; on the 7th, 8th, 9th, and 10th, she went to Mr. Long's, and on the evening of the 10th complained to her husband of a violent burning across her chest, in consequence of which he looked at it, and found a great redness across her bosom, darker in the centre than at the other parts; she also complained of great chilliness, and shivered with cold, and passed a very restless and uncomfortable night. On the 11th, she was very unwell all day, and complained of great thirst, the redness was more vivid, and the spot in the centre darker, round the edges white and puffed up, and there was a dirty white discharge from the centre. Cabbage leaves had been applied, and when they were removed, they appeared slimy from the discharge; the night of the 11th was passed very uncomfortably. On the morning of the 12th, the redness on the chest and breast was, if anything, greater, and the spot in the centre more puffed up and darker; the redness was more spread round the edges, and, where it stopped, there were blisters in the skin, apparently from the discharge; the inner part of the arms also was very red where the discharge had run down on each side. On the 12th she was very feverish and restless, and had no appetite; and in consequence of these symptoms, Capt. Lloyd went to Mr. Long about the middle of the day; Mr. Long asked why Mrs. Lloyd had not come to inhale, *and go on with the rubbing;* Capt. Lloyd replied, it was impossible, she was so very ill; that she had been constantly unwell since the night of

the 10th, and was suffering a great deal of pain and sickness; Mr. Long said he dare say it would soon pass off; it was generally the case. He was told of the shivering and chilliness, and that some hot wine and water had been given to relieve her; he said hot brandy and water would have been a better thing, and to put her head under the bed-clothes. He was told that the chest and breast looked very red and very bad; he said that was generally the case in the first instance, but it would go off as she got better, and that Capt. L. need not be uneasy about it, as there was no fear or danger; Capt. Lloyd requested him to call in the evening, and then told him where Mrs. Lloyd was, which it appeared *he did not know before;* in the evening he came and saw her; in the course of the day the cabbage leaves had been removed, and a dressing of spermaceti ointment put on the chest instead. He said he was very sorry to see her so unwell, that she ought to have endeavored to get up and come to him, and he would have relieved her; she said it was impossible, she was in so much pain and suffering, and with her breast open in that way it might be dangerous. He desired to look at it, and observing the dressing, said, those greasy plasters had no business there, and she ought to have continued the cabbage leaves. She said she could not bear the pain of keeping them on. He then took off his great coat, and said he would rub it out; and he turned up the cuff of his coat as if for the purpose of doing so. She exclaimed very much with fright, and expressed her wonder that he should think of rubbing in the state her breast was in. She asked if there was no way of keeping the leaf on without touching the breast; and he asked her what she wished. She replied, 'To be healed.' He said, it would never heal with those greasy plasters; that was not the way in which he healed sores. He then asked for a towel and began dabbing it on the breast, particularly in the centre, where the discharge came from. He said that old linen was the best thing to heal a wound of that kind. She said her skin and flesh were very healthy, and always healed immediately with the simple

dressing she had used. He said old linen was better, but she might use the dressing if she liked; he saw no objection, and, when it skinned over he would rub it again. She said no; she thought she could never submit to rubbing again, from what she was then suffering. He then went away. On the evening of the following day (the 13th) he called again, but Mrs. Lloyd would not see him, and begged her husband not to allow him to come up; and he never saw her afterwards. She died on the 8th day of November, just a month and a day after she put herself under Mr. Long's care.

On the cross-examination of Capt. Lloyd, he said that his son continued to attend Mr. Long for several days after the commencement of the deceased's illness, and on one occasion was desired to tell Mr. Long that he need not come to see her, as she was better. He also added that a person, describing himself as a medical man, and saying that he was sent by Mr. Long, applied to see Mrs. Lloyd, and was not allowed. He also admitted that he had told Mr. Long that he could not pay fees for his son until after Christmas, and that Mr. Long said that would not make any difference, he might send him and he would attend him.

Mrs. Campbell stated that Mrs. Lloyd was in a very good state of health, except that her throat was sometimes troublesome; that she complained of a stoppage in swallowing; that on the 10th of October, when the shivering came on, the bed was warmed, and Mrs. Lloyd put in, and bottles of hot water applied to her feet; and that when Mr. Long went away, after having seen her, he did not give any directions as to diet, or order her any internal medicine. It also appeared from her evidence, that previous to Mrs. Lloyd's putting herself under the care of Mr. Long, she had attended three days at the inquest held on the body of Miss Cashin.[1]

From the examination in chief of Mr. Campbell, the surgeon, it appeared that he was the son of Mrs. Campbell, at whose house the deceased was on a visit, and that he first

[1] For account of Long's trial for the manslaughter of Miss Cashin, see preceding case.

saw the deceased, about four o'clock in the afternoon of the 12th of October, at his mother's desire; at which time he found a very extensive wound, covering the whole anterior part of the chest, which, in his opinion, might be produced by any strong acid; that the skin was destroyed, and lay in folds on the chest, entirely separated; that the cellular tissue was partly destroyed, and there was a considerable discharge generally; that the wound extended nearly from one arm-pit to the other, and from the throat down to the pit of the stomach; that the skin was off both breasts, and the centre of the wound was darker, and in a higher state of inflammation than the other parts; that *he removed the cabbage leaves and applied the dressing of spermaceti ointment;* that he saw the deceased on the 13th, and afterwards daily, several times a day, till her death; that he considered the wound very dangerous to life when he first saw it, but only continued to apply the spermaceti dressing till the 21st of October, when he called in the assistance of Mr. Vance, who continued at first to apply the same dressing, only adding to it a litle calamine powder; that on the second or third day of his attendance, Mr. Vance applied a bread and water poultice; that he (Mr. Campbell) at first gave Mrs. Lloyd some saline aperient medicine, and when the centre spot, and the upper part of the chest became gangrenous, which they did in about a week, in order to support nature, she had bark, mineral acid, and quinine. The witness added that, in his opinion, Mrs. Lloyd died of the wound which he first saw; that, according to his judgment, it was not necessary or proper to produce such a wound, to prevent any difficulty in swallowing; and that he did not know of any disease in which the production of such a wound would be necessary or proper. He further stated that he informed Mr. Vance of the course he had pursued, and that nothing which he or Mr. Vance applied could possibly increase the danger of the patient. On his cross-examination he said that he had been in practice six or seven years; that, in the course of his practice, he had known a common blister often

produce very injurious effects, which the person who prescribed it never contemplated; and that a medical man must regulate his treatment as well by the statements of the patient, as by external appearances; that he did not wish for any additional assistance till gangrene commenced, though he feared it would take place from the first; and that he stated the danger he apprehended, very soon after he was called in, to his mother, and Capt. Lloyd, and a sister of the deceased, but that twice they had some hopes of her eventual recovery. On his reëxamination he said that he did not consider it a case of difficulty in the treatment; that he was present at the *post-mortem* examination; and that the wound did not present the appearances which he had ever seen produced by a common blister. In answer to questions from the judge, he said that he thought rubbing on the 12th of October, when he first saw the wound, would have increased the inflammation and could not have been in any respect beneficial.

Mr. Vance's evidence agreed in substance with the account of the appearances of the wound, as given by the other witnesses. He stated also that he approved of the treatment pursued by Mr. Campbell. He added, that he had attended Mrs. Lloyd about three years before her death for an affection of the throat, which he at first thought a case of narrow œsophagus, but afterwards ascertained to be globus hystericus: which he described as an inverted motion of the muscular fibres of the canal, very common among women in early life, and of which he had seen many thousand cases, but never knew it to produce death. He described the appearance of the body after death, and said it was internally and externally in perfect health, with the exception of a partial disease of the thyroid gland, and an inflammatory affection of the lining of the windpipe (occasioned from their contiguity to the ulcer), and a little narrowness at the entrance of the œsophagus, which he believed to be congenital, as there was no thickening of the part. He attributed the death of Mrs. Lloyd to the extent of the mortification caused by high inflammation, produced by some powerful application. On

his cross-examination he said that at one time he had hope, because he found the healthy and unhealthy parts were separating. In answer to questions from the judge, he said that the state of the wound, as described, on the 12th of October, might produce the result stated; that he thought a man of common prudence or skill would not have applied a liquid which in two days would produce such extensive inflammation, though all irritating external applications sometimes exceeded the expectations of the medical attendant; but he should say that such conduct was a great proof of rashness and of ignorance. In answer to a question from a juror, he stated that it was very difficult to say whether, if he had been called in on the 12th, he could have prevented the death; but, if he were to make a positive reply, he should say that it was not likely that he could, as it seemed to be a case of great peril from the beginning.

Mr. Brodie stated that he saw the deceased, at the request of Mr. Vance, on the 29th of October, and saw a large sloughing ulcer, which he believed might have been produced by rubbing a corrosive liniment into the parts on the 10th of October; that he did not know of any disease which should lead a person to apply a liniment with the intention of producing such an effect. On his cross-examination, he said: 'It is, and always has been, the practice to produce counter-irritation, and the same application may be beneficial to one person and injurious to another, according to habit and constitution. The effect of a liniment or blister, or any other external irritant, as we call them, sometimes goes beyond the effect we intend, and the most scientific practitioner may often be deceived in his expectation; he cannot always calculate to a nicety. I do not recollect at this moment any instance in which death has ensued from a blister properly applied, but I suppose it may happen. I suppose over exercise would produce over irritation where a blister had been applied. In treating a wound, I should judge from the appearances and the state of the patient. I think it would be desirable, under such circumstances, to know the nature of

the application; but I do not think it would lead to any great difference in the treatment. In cases of poison, we do not apply the same remedy, especially where it has been taken into the stomach. As to external applications, I do not think a surgeon would judge so much from what had been applied as from the appearances. Circumstances may occur in which, when a particular course is intended, a stranger's coming in and pursuing another and different course would produce mischief.'

On his reëxamination, he said: 'In the case of such a wound as has been described and I saw, I should not have thought it necessary to resort to the person who had produced it; and I doubt whether, in this case, it would have led to any useful knowledge.'

In answer to questions from the judge, he said: 'Though I do not think it absolutely necessary, I should have got at the matter if I could. I should think that the spermaceti ointment would not certainly increase the danger of such a wound as that described on the 12th of October. I never saw such an effect produced by an ordinary medical application. There are some constitutions in which very slight remedies will produce dangerous consequences. I have seen one person die of the bite of a leech, and another from the sting of a bee. I had no means of knowing anything of this lady's constitution. I should believe, from the evidence I have heard of the way in which the inflammation made progress, that it proceeded rather from the nature of the application than from the constitution of the party; but it may have depended on both. It is usual to try to ascertain the nature of the constitution. We cannot always do it, but in using potent remedies we use great caution. I cannot form a positive opinion whether the liniment was rashly used or not; but the impression on my mind is, that it was used without sufficient caution, and, therefore, either rashly or ignorantly. I have seen many instances of inflammation from external application, but I never saw so extensive an effect produced as in this instance.'

Mr. Frankum then proved that he saw Mrs. Lloyd about a week before her death, and was present at the *post-mortem* examination. His opinion was, that she was very healthy, and that there was not, as far as he could judge, any peculiarity of constitution which would account for the violent effects produced.

Alley, for the prisoner. The facts alleged are not legally established, admitting, for the present, that the evidence is correct. Some of the counts charge the death to have been occasioned by an ulcer and sore produced by an external aplication, and also by inhaling of a certain noxious vapor. But as no evidence has been offered with respect to the inhaling, that is not now the subject of inquiry. The substance of the other count is, that the death was occasioned by the external application, which is alleged to have been improperly made. There is no count imputing ignorance or want of skill, or hastiness or roughness of practice; and therefore, there being no allegation of that kind, no evidence can be used to influence the jury on that subject. The rules with respect to indictments are clear. In *Overbury's case*, Lord Coke lays it down that no evidence can be given of any other cause of death than that which is stated in the indictment. It is the mind that constitutes the individual a criminal, and not the act done, according to the old maxim of the law, '*Actus non facit reum nisi mens sit rea.*' The indictment charges prisoner with the offence of manslaughter. Now manslaughter, in one view, is an offence committed on the sudden, in a moment of intemperate feeling. Another species of manslaughter is, where death has been caused in the prosecution of an illegal act. There are also justifiable homicide and homicide *per infortunium;* and it is this latter kind of homicide of which the act complained of consists. Where a man, in an honest mind, does an act which he thinks right, and death ensues, it is homicide *per infortunium*. Lord Coke's *dictum* as to unlicensed practitioners is not law. Sir Matthew Hale repudiates it, and lays down the correct rule on the subject; and on his rule it is that I

found my defence of the prisoner. That rule is adopted by all the text writers on the criminal law. It is that where a potion is given without any intent of doing bodily hurt, but with an intention to cure or prevent a disease, and, contrary to expectation, it produces death, it is not manslaughter. Such a charge as that against the prisoner has never, by the common law, been considered to be manslaughter. There is a modern case upon the subject, but I believe it is a solitary case, and I should be inclined very much to doubt whether it is quite correct. The statute 34 & 35 Hen. 8, c. 8, which is entitled 'A bill, that persons being no common surgeons may administer medicines, notwithstanding the statute,' after referring to an act of the 3d Hen. 8, subjecting to penalties persons who should practise as physicians or surgeons without being examined and admitted, goes on to say, 'Sithence the making of which said act the company and fellowship of surgeons of London, minding only their own lucres, and nothing the profit or ease of the diseased or patient, have sued, troubled, and vexed divers honest persons, as well men as women, whom God hath endued with the knowledge of the nature, kind, and operation of certain herbs, roots, and waters, and the using and ministering of them to such as be pained with customable diseases, as women's breasts being sore, a pin and the web in the eye, uncomes of hands, burnings, scaldings, sore mouths, the stone, strangury, saucelin, and morphew, and such other like diseases, and yet the said persons have not taken anything for their pains or cunning, but have ministered the same to poor people only, for neighborhood and God's sake, and of pity and charity. And it is now well known that the surgeons admitted will do no cure to any person but where they shall know to be rewarded with a greater sum or reward than the cure extendeth unto; for in case they would minister their cunning unto sore people unrewarded, there should not so many rot and perish to death for lack or help of surgery, as daily do; but the greatest part of surgeons admitted been much more to be blamed than those persons that they trouble.' It further

states that, 'although the most part of the persons of the said craft of surgeons have small cunning, yet they will take great sums of money, and do little therefor, and by reason thereof they do oftentimes impair and hurt their patients rather than do them good.' In consideration whereof, and for the ease, &c., and health of the king's poor subjects, &c., it proceeds to enact that it shall be lawful to every person having knowledge and experience of the nature of herbs, &c., to practise, use, and minister them without suit or vexation.

The question is one of very great importance. A man who has to amputate a limb will have the knife tremble in his hand, if he is to be liable when he has acted with a good intent. The provisions of the Stat. 34 & 35 Hen. 8, c. 8, show that every man has a right to practise, and if death ensues when the intention is good, the party cannot be guilty of manslaughter. The prisoner cannot call any witness to prove what the liquid was, as its composition is known only to himself; and indeed it is alleged in the indictment to have been secretly prepared by him. It cannot be ruled that, where the mind is pure, and the intention benevolent, and there are no personal motives, such as a desire of gain, if an operation be performed, of the mode of performing which no evidence is given, the party is responsible. In East's Pleas of the Crown, vol. 1, p. 264, the learned writer says: 'If one who is no regular physician or surgeon administer medicine or perform an operation, which, contrary to expectation, kills, it was formerly holden manslaughter. But Lord Hale denies this very properly; *it is rather misadventure*, — though this doubt should make ignorant people cautious how they interfere in such matters. But if one give physic to another *in sport*, of which he dies, it will be manslaughter,' &c. The case of the *King* against *Van Butchell*, reported in 3 C. & P. 629, is also a point on this subject.

BAYLEY, B. We are aware of all these cases. There are, in my mind, contradictory authorities; and I propose, with the assent of my learned brothers, to reserve the point for you, if the prisoner should be convicted. I agree with my

Lord Hale, and do not think that there is any difference between a licensed and an unlicensed surgeon. It does not follow that, in the case of either, an act done may not amount to manslaughter. There may be cases in which a regular medical man may be guilty; and that is all that Lord Hale lays down, — and that may be laid out of the question in this case. But the manner in which the act is done, and the use of due caution, seems to me to be material. Mr. Justice Foster, in his Criminal Law, p. 263, speaking of a person who happens to kill another by driving a cart or other carriage, says, 'If he might have seen the danger, and did not look before him, it will be manslaughter *for want of due circumspection*.' And there is also a passage in Bracton to the like effect. But all that I mean to say now is, that, there being conflicting authorities, and the impression on our minds not being in your favor, I propose to reserve the point. As to the indictment not being supported by the evidence, one of the allegations is that the prisoner *feloniously* applied a noxious and injurious matter. And there is no doubt, if the jury should be of opinion against the prisoner, that the facts proved will be sufficient to warrant their finding that the prisoner *feloniously* did the act. For if a man, either with gross ignorance or gross rashness, administers medicine and death ensue, it will be clearly felony.

Alley. Then I submit that, in this case, as in a case of larceny, there must be a trespass proved. Trespass is the foundation stone of felony. It is not proved that any fraud has been practised by the prisoner to get the patient under his care. Nor has there been any avaricious seeking after fees. If there had been, it might have been evidence to show the existence of trespass; but it was not so, according to the testimony of the husband. The prisoner's conduct showed that his intentions were good and honest. If he had solicited the lady's attendance, then a wrong intention might be inferred, and he would be responsible, But it seems that she attended with her son, and saw the number of patients attending, and applied to the prisoner to benefit her. As to

a man's driving a cart, as mentioned by Mr. Justice Foster, if he is going too quick, he is liable; if he is going at a proper pace, he is not responsible. If the rule I contend for is not to be adopted, the good Samaritan must close his hand, and those benevolent persons who are in the habit of administering to the comforts of the sick must cease to attend the death-beds of the poor. There must be a trespass in every felony, — and trespass is not to be inferred. Upon this principle it was that Mr. Baron Hallock decided in the *Case of Van Butchell.* Suppose that instead of Dr. Jenner some cow-boy had found out vaccination, and exhibited the virus on certain children, and they had done well, and on others and they had died, would he have been subject to be called an impostor, and charged with introducing a virus that was injurious? Dr. Jenner persevered, and was rewarded. And why should not Mr. Long persevere; why should he, without remuneration, give up his secret any more than Dr. Jenner,[1] or than Dr James, who invented the powder which goes by his name? The *Case of Van Butchell* is all fours with the present. The learned judge stopped that case because there was no evidence of how the operation was performed; and here there is not any evidence to show the mode in which the application was made.

BAYLEY, B. In this case, we may judge of the thing by the effect produced, and that may be evidence from which the jury may say whether the thing which produced such an effect was not improperly applied.

BOLLAND, B. When you pass the line which the law allows, then you become a trespasser.

Adolphus was heard shortly, and contended that if a

[1] Dr. Jenner did not keep the method and means of vaccination a secret, nor did he attempt to. Nor did he attempt having it patented, but as soon as he had completed his discovery, published it — made it free to all mankind. When quinine was first discovered, the mode of preparing it was immediately made known. So, too, with hydrate of chloral and chloroform. The attempt to patent ether and the process of etherization met with a prompt rebuke. The really valuable discoveries in medicine have never been nor never will be kept secret, for they have been and will be made by minds that are far above those found among quacks and charlatans.

person's *intention* was only to be *helpful*, he could not be guilty of manslaughter.

Alley then said, that if his lordship thought it would be most conducive to the interests of justice that the point should be reserved, he would yield to that opinion without further observation.

BAYLEY, B. If I had a clear opinion in your favor, or if my brothers had, or if we had any reason to think that other judges were of a different opinion, it would become our duty to give an opinion here, and prevent the case from going to the jury. But, feeling as I do, nothwithstanding all I have heard to-day, and myself and my brothers having had our attention directed to the law before we came here, I think it right that the case should go to the jury. I think if the jury shall find a given fact in the way in which I shall submit it to them, it will constitute the crime of *feloniously* administering, so as to make it manslaughter. I do not charge it on ignorance merely, but there may have been rashness. And I consider that rashness will be sufficient to make it manslaughter. As, for instance, if I have the toothache, and a person undertakes to cure it by administering laudanum, and says, 'I have no notion how much will be sufficient,' but gives me a cupful, which immediately kills me; or, if a person prescribing James's powder says, 'I have no notion how much ought to be taken,' and yet gives me a table-spoonful, which has the same effect; such person acting with rashness will, in my opinion, be guilty of manslaughter. With respect to what has been said about a willing mind in the patient, it must be remembered that a prosecution is for the public benefit, and the willingness of the patient cannot take away the offence against the public.

The prisoner in his defence said that the prosecution was in reality that of the medical gentlemen, who did not prosecute other medical men, but atacked him, because his patients were the incurables of the faculty, and because he cured consumptives, which they were never able to do. He contended that it was not just to render him responsible when the death occurred

while Mrs. Lloyd was under the care of others, and neither he nor his medical friend was allowed to do anything for her. He also charged Mr. Campbell with unskilfulness in his treatment of the case, and argued, that if the mixture had been of the injurious nature suggested, it must have produced mortification much earlier than, according to the evidence, it did.

He further stated, that he could prove, if it were necessary, that he had studied anatomy, and was acquainted with the constitution of the human frame.

For the defence, twenty-six witnesses were called, who spoke in the highest terms of the prisoner's skill, care, and attention. Most of them had been his patients, and a few had been witnesses of his treatment of some near relations. Many of them not only gave their own opinion, but also stated the general reputation he had among other persons who attended at the same time. One of them said, 'His attention cannot be exceeded; I have found more skill in him and derived more benefit from him than all the doctors I ever consulted.' Another said, 'I think him the kindest, the most attentive, and the most skilful person I ever met with.' Another said, 'I have reason to praise his skill, for he cured my child of consumption; and I have reason to praise his kindness, for he only took half fees.' Several said that they had known him cure persons who had resorted in vain to other medical men.

BAYLEY, B., in summing up, said: The indictment charges the prisoner as having caused the death of Mrs. Lloyd, by the application of a certain liquid, and the points for your consideration will be: first, whether Mrs. Lloyd came to her death by the application of the liquid; and secondly, whether the prisoner, in applying it, has acted feloniously or not. To my mind, it matters not whether a man has received a medical education or not; the thing to look at is, whether in reference to the remedy he has used, and the conduct he has displayed, he *has acted with a due degree of caution*, or, on the contrary, has acted with *gross and improper rashness and want of caution.* I have no hesitation

in saying for your guidance, that if a man be guilty of gross negligence in attending to his patient, after he has applied a remedy, or of gross rashness in the application of it, and death ensues in consequence, he will be liable to a conviction for manslaughter. There is no pretence in the present case for saying that there was any degree of negligence after the application of the liquid, because it seems that the prisoner did not know where Mrs. Lloyd lived; and when he was sent for on the 12th, he went, but was almost immediately dismissed, and was not allowed to see her afterwards. If you shall be of opinion that the prisoner made the application with a gross and culpable degree of rashness, and that it was the cause of Mrs. Lloyd's death, then, heavy as the charge against him is, he will be answerable on this indictment for the offence of manslaughter. There was a considerable interval between the application of the liquid, and the death of the patient; yet, if you think that the infliction of the wound on the 10th of October was the cause of death, then it is no answer to say, that a different course of treatment by Mr. Campbell might have prevented it. You will consider these two points: first, of what did Mrs. Lloyd die? You must be satisfied that she died of the wound which was the result of the application made on the 10th of October; and then, secondly, if you are satisfied of this, — whether the application was a felonious application. This will depend upon whether you think it was gross and culpable rashness in the prisoner to apply a remedy which might produce such effects, in such a manner that it did actually produce them. If you think so, then he will be answerable to the full extent. His lordship read over the evidence, requesting the jury to apply it, as he proceeded, to the two points he had mentioned; and, after some deliberation, they returned a verdict of

Not guilty.

Denman, A. G., *Whately & Talfourd*, for the prosecution.
Alley, Adolphus, C. Phillips & Clarkson, for the prisoner."

It may seem unnecessary to have presented both cases of *Rex* v. *Long* in this connection. The fact, however, that

each charge was separate and distinct from the other, the charges being in each of precisely the same gravity and character; the malpractice being upon two patients as nearly alike as two patients could be; the medical application being in each alike, the effect produced similar, and the result in each the same, being death; tried before different judges and juries, with the prosecuting counsel in the first case being the counsel for the defence in the second; with favorable instructions from the court in the first case, resulting in an adverse verdict from the jury; with unfavorable instructions from the court in the second case, with a verdict of acquittal from the jury, — rendered it eminently proper that the two cases should be rendered in full and placed in their order of sequence in juxtaposition.

Peck *v.* Martin.[1]

" Worden, J. Action by Martin against Peck. Answer, trial; verdict, and judgment for the plaintiff, a motion in arrest being overruled.

The only question in the case arises on the ruling upon the motion in arrest. The complaint is as follows, namely: —

'*Andrew Martin*, plaintiff in this suit, complains of Samuel W. Peck, defendant, and says, that on, &c., the said defendant was a practising physician and surgeon at said county, and that, as such physician and surgeon, he was called upon by the plaintiff to visit one Mary Ann Martin, of the age of ten years, the child, daughter, and servant of the plaintiff, who was then sick; and the said defendant was then, and on divers days and times after said last mentioned day, and (before) the time of bringing this suit, requested by said plaintiff to administer the proper medicines and treatment, for the cure of the said Mary Ann, the child, daughter, and servant of the plaintiff. And the said plaintiff says, that the said defendant, on the days and times aforesaid, undertook, as such physician and surgeon, to administer medicine to the

[1] 17 Ind. R. 115.

said Mary Ann, child, &c., of the plaintiff. And the plaintiff avers that the defendant so negligently, unskilfully, and unprofessionally managed and treated said child, that she became, by reason thereof, imbecile, speechless, and wholly insane; and defendant did then and there so negligently, unskilfully, and unprofessionally administer said medicines, and then and there also gave and administered such poisonous, noxious, and improper drugs to the said Mary Ann, that she was thrown into spasms, and thereby became demented, and lost all her mind and reason, and powers of speech, and all her mental and physical powers have failed her. During all of which time the plaintiff lost, and has been deprived of, the service of his said daughter and servant, and of all the benefit and advantage which might, and would otherwise have arisen and accrued to him, from such service, as well as the comfort of her society, wherefore,' &c.

The objection to the complaint is thus stated in the brief of counsel for appellant: 'This complaint is founded on contract; and even if it be considered as founded on tort, still, in an action on the case, founded on an express or implied contract, as against an attorney, &c., the declaration must correctly state the contract, or the particular duty or consideration, from which the liability results, and on which it is founded. 1 Chit. Pl. 384. In short, we hold that in this case the declaration must state a valid contract, either by alleging the duty or by stating the consideration, on which Peck undertook, &c. No such duty or consideration is stated in the complaint, and for this omission we contend that it is materially defective. We believe no authority can be found to the contrary.'

In England, 'a physician, or medical practitioner affecting to be a physician, has no remedy at law to recover a remuneration for his services. The reason is, that he is presumed to act with a view only to an honorary reward.' Chit. on Cont. 573. In this country, however, it is different; for here he can recover for his services in the same manner as an attorney, or other person performing services for another.

An employment of him by a party, without express agreement as to compensation, raised an implied agreement on the part of the employer to pay what his services are reasonably worth. In the case at bar, although it is not alleged that the defendant undertook to perform the services 'for and in consideration of a certain reasonable reward, to be paid him therefor by the plaintiff,' yet this is implied from the employment.

Again, it is alleged that the defendant was a practising physician and surgeon, and that as such he undertook the employment. The duty arising from such character and undertaking, to exercise a reasonable degree of care and skill, is as apparent as if it were stated in terms.

It may well be doubted whether, under our system of pleading, the supposed defects would be fatal on demurrer; but this point we do not decide, as the question does not arise in that manner. The complaint, we have no doubt, is good, on motion in arrest of judgment. The supposed defects are, undoubtedly, cured by the verdict. Chit. Pl. 673. 'The expression cured by verdict,' says Mr. Chitty, 'signifies that the court will, after a verdict, presume, or intend, that the particular thing which appears to be imperfectly or defectively stated, or omitted, in the pleading, was duly proved at the trial. And such intendment must arise, not merely from the verdict, but from the united effect of the verdict and the issue upon which the verdict was given. On the one hand, the particular thing which is presumed to have been proved must always be such as can be implied from the allegations on the record, by fair and reasonable intendment. And, on the other hand, a verdict for the party in whose favor such intendment is made is indispensably necessary, for it is in consequence of such verdict, and in order to support it, that the court is induced to put a liberal construction upon the allegations in the record.' Ib. Can it not be implied from the allegations in the complaint, 'by fair and reasonable intendment,' that the plaintiff in employing the defendant became bound by an implied promise to pay him what his services

were reasonably worth? If so, this implied promise furnishes a sufficient consideration for the defendant's undertaking. A case put by Mr. Chitty to illustrate the doctrine is much in point. At page 667 he says: 'In another case of an action of assumpsit, the declaration stated that the plaintiff had retained the defendant (who was not an attorney) to lay out £700 in the purchase of an annuity, and that the defendant promised to lay it out securely; that the plaintiff delivered the money to the defendant accordingly, but the defendant laid it out on a bad and insufficient security. After verdict, it was objected, on a writ of error, that no consideration appeared in the declaration; and that it was not averred that the promise was in consideration of the retainer, nor that the retainer was for a reward; but the court held that it was absolutely necessary, under the declaration, that the plaintiff should have proved at the trial that he had actually delivered the money to the defendant, and that the latter had engaged to lay it out; that the delivery of the money for this purpose was a sufficient consideration to support the promise, and although it was not expressly alleged in the declaration that the delivery of the money was in fact the consideration for the promise, the court would intend, after verdict, that such was the consideration.'

So here it was necessary that the plaintiff should have proved upon the trial that he employed the defendant to perform the services which the defendant undertook, and we will intend that the plaintiff's implied promise to pay him was the consideration of the defendant's undertaking.

Per Curiam. The judgment is affirmed, with ten per cent. damages and costs."

Commonwealth *v.* Samuel Thompson.[1]

"At the beginning of the term the prisoner Thompson was indicted for the wilful murder of Ezra Lovett, Jun., by giving him a poison, called *lobelia*, on the 9th day of Janu-

[1] 6 Mass. 134.

ary last, of which he died on the next day. On the 20th day of December, at an adjournment of this term, the prisoner was tried for this offence, before the Chief Justice, and the Judges Sewall and Parker. On the trial, it appeared in evidence that the prisoner, some time in the preceding December, came into Beverly, where the deceased then lived, announced himself as a physician, and professed an ability to cure all fevers, whether *black*, *gray*, *green*, or *yellow*, declaring that the country was much imposed upon by physicians, who were all wrong, if he was right. He possessed several drugs, which he used as medicines, and to which he gave singular names. One he called *coffee;* another, *well-my-gristle;* and a third, *ramcats*. He had several patients in Beverly and in Salem, previous to Monday, the 2d of January, when the deceased, having been for several days confined to his house by a cold, requested that the prisoner might be sent for as a physician.

He accordingly came, and ordered a large fire to be kindled to heat the room. He then placed the feet of the deceased, with his shoes off, on a stove of hot coals, and wrapped him in a thick blanket, covering his head. In this situation he gave him a powder in water, which immediately puked him. Three minutes after, he repeated the dose, which in about two minutes operated violently. He again repeated the dose, which in a short time operated with more violence. These doses were all given within the space of half an hour, the patient in the mean time drinking copiously of a warm decoction, called by the prisoner his *coffee*. The deceased, after puking, in which he brought up phlegm, but no food, was ordered to a warm bed where he lay in a profuse sweat all night. Tuesday morning the deceased left his bed, and appeared to be comfortable, complaining only of debility; and in the afternoon he was visited by the prisoner, who administered two more of his emetic powders in succession, which puked the deceased, who, during the operation, drank of the prisoner's *coffee*, and complained of much distress. On Wednesday morning, the prisoner came, and after causing

the face and hands of the deceased to be washed with rum, ordered him to walk in the air, which he did for about fifteen minutes. In the afternoon, the prisoner gave him two more of his emetic powders, with draughts of his *coffee*. On Thursday, the deceased appeared to be comfortable, but complained of great debility. In the afternoon, the prisoner caused him to be again sweated, by placing him, with another patient over an iron pan, with vinegar heated by hot stones put into the vinegar, covering them, at the same time with blankets, who appeared to be comfortable, although complaining of increased debility. On Sunday morning, the debility increasing, the prisoner was sent for, and came in the afternoon when he administered another of his emetic powders and in about twenty minutes repeated the dose. This last dose did not operate. The prisoner then administered pearlash mixed with water, and afterwards repeated his emetic potions. The deceased appeared to be in great distress, and said he was dying. The prisoner then asked him how far the medicine had got down. The deceased, laying his hand on his breast, answered here; on which the prisoner observed that the medicine would soon get down, and *unscrew his navel;* meaning, as was supposed by the hearers, that it would operate as a cathartic. Between nine and ten o'clock in the evening, the deceased lost his reason, and was seized with convulsion fits; two men being required to hold him in bed. After he was thus seized with convulsions the prisoner got down his throat one or two doses more of his emetic powders; and remarked to the father of the deceased, that his son had got the *hyps* like the devil, but that his medicines would fetch him down; meaning, as the witness understood, would compose him. The next morning the regular physicians of the town were sent for, but the patient was so completely exhausted that no relief could be given. The convulsions and the loss of reason continued, with some intervals, until Tuesday evening, when the deceased expired.

From the evidence it appeared that the *coffee* administered

was a decoction of marsh-rosemary, mixed with the bark of bayberry-bush, which was not supposed to have injured the deceased. But the powder, which the prisoner said he chiefly relied upon in his practice, and which was the emetic so often administered by him to the deceased, was the pulverized plant, trivially called *Indian tobacco*. A Dr. French, of Salisbury, testified that the plant, with this name, was well known in his part of the country, where it was indigenous, for its emetic qualities; and that it was gathered and preserved by some families, to be used as an emetic, for which the roots, as well as the stalks and leaves, were administered; and that four grains of the powder was a powerful puke. But a more minute description of this plant was given by the Rev. Dr. Cutler. He testified that it was the *lobelia inflata* of Linnæus; that many years ago, on a botanical ramble, he discovered it growing in a field not far from his house in Hamilton; that not having Linnæus then in his possession, he supposed it to be a nondescript species of the *lobelia;* that by chewing a leaf of it, he was puked two or three times; that afterwards he repeated the experiment with the same effect; that he inquired of his neighbor, on whose ground the plant was found, for its trivial name. He did not know of any, but was apprised of its emetic quality, and informed the doctor that the chewing more would prove cathartic. In a paper soon after communicated by the doctor to the American Academy, he mentioned the plant, with the name of the *lobelia medica*. He did not know of its being applied to any medical use until the last of September, when, being severely afflicted with the asthma, Dr. Drury, of Marblehead, informed him that a tincture of it had been found beneficial in asthmatic complaints. Dr. C. then made for himself a tincture by filling a common porter bottle with the plant, pouring upon it as much spirit as the bottle would hold, and keeping the bottle in a sand-heat for three or four days. Of this tincture he took a table-spoonful which produced no nausea, and had a slight pungent taste. In ten minutes after he repeated the potion, which produced some

nausea, and appeared to stimulate the whole internal surface of the stomach. In ten minutes, he again repeated the potion, which puked him two or three times, and excited in his extremities a strong sensation, like irritation, but he was relieved from a paroxysm of the asthma, which had not since returned. He had since mentioned this tincture to some physicians, and has understood from them, that some patients have been violently puked by a teaspoonful of it, but whether this difference of effect arose from the state of the patients, or from the manner of preparing the tincture, he did not know.

The *Solicitor General* also stated, that before the deceased had applied to the prisoner, the latter had administered the like medicines with those given to the deceased to several of his patients, who had died under his hands; and to prove this statement, he called several witnesses, of whom but one appeared. He on the contrary testified that he had been the prisoner's patient for an oppression at his stomach; that he took his emetic powders several times in three or four days, and was relieved from his complaint, which had not since returned. And there was no evidence in the cause that the prisoner, in the course of his very novel practice, hade xperienced any fatal accident among his patients.

The defence stated by the prisoner's counsel was that he had, for several years and in different places, pursued his practice with much success; and that the death of the deceased was unexpected, and could not be imputed to him as a crime. But as the court were satisfied that the evidence produced on the part of the Commonwealth did not support the indictment, the prisoner was not put on his defence.

The CHIEF JUSTICE charged the jury; and the substance of his direction, and of several observations, which fell from the court during the trial, are for greater convenience here thrown together.

As the testimony of the witnesses was not contradicted, nor their credit impeached, that testimony might be considered as containing the necessary facts on which the issue must be found.

That the deceased lost his life by the unskilful treatment of the prisoner, did not seem to admit of any reasonable doubt; but of this point the jury were to judge. Before the Monday evening preceding the death of Lovett, he had by profuse sweats and by often repeated doses of the emetic powder, been reduced very low. In this state, on that evening, other doses of this Indian tobacco were administered. When the second potion did not operate, probably because the tone of his stomach was destroyed, the repetition of them, that they might operate as a cathartic, was followed by convulsion fits, loss of reason, and death. But whether this treatment, by which the deceased lost his life, is or is not a felonious homicide, was the great question before the jury.

To constitute the crime of murder, with which the prisoner is charged, the killing must have been with malice, either express or implied. There was no evidence to induce a belief that the prisoner, by this treatment, intended to kill or to injure the deceased; and the ground of express malice must fail. It has been said that implied malice may be inferred from the rash and presumptuous conduct of the prisoner, in administering such violent medicines. Before implied malice can be inferred, the jury must be satisfied that the prisoner, by this treatment of his patient, was wilfully regardless of his social duty, being determined on mischief. But there is no part of the evidence which proves that the prisoner intended by his practice any harm to the deceased. On the contrary, it appears that his intention was to cure him. The jury would consider whether the charge of murder was on these principles satisfactorily supported.

But though innocent of the crime of murder, the prisoner may on this indictment be convicted of manslaughter, if the evidence be sufficient. And the solicitor general strongly urged that the prisoner was guilty of manslaughter, because he rashly and presumptuously administered to the deceased a deleterious medicine, which in his hands, by reason of his gross ignorance, became a deadly poison. The prisoner's ig-

norance is in this case very apparent. On any other ground consistent with his innocence, it is not easy to conceive that on the Monday evening before the death, when the second dose of his very powerful emetic had failed to operate, through the extreme weakness of the deceased, he could expect a repetition of these fatal poisons would prove a cathartic, and relieve the patient; or that he could mistake convulsion fits, symptomatic of approaching death, for a hypochondriac affection.

But on considering this point, the court were all of opinion, notwithstanding this ignorance, that if the prisoner acted with an honest intention and expectation of curing the deceased by this treatment, although death unexpected by him was the consequence, he was not guilty of manslaughter.

To constitute manslaughter, the killing must have been a consequence of some unlawful act. Now, there is no law which prohibits any man from prescribing for a sick person, with his consent, if he honestly intends to cure him by his prescription. And it is not felony if through his ignorance of the quality of the medicine prescribed, or of the nature of the disease, or of both, the patient, contrary to his expectation, should die. The death of a man killed voluntarily following a medical prescription cannot be adjudged felony in the party prescribing, unless he, however ignorant of medical science in general, had so much knowledge, or probable information of the fatal tendency of the prescription, that it may be reasonably presumed by the jury to be the effect of obstinate, wilful rashness at the least, and not of an honest intention and expectation to cure.

In the present case there is no evidence that the prisoner, either from his own experience or from the information of others, had any knowledge of the fatal effects of the Indian tobacco, when injudiciously administered; but the only testimony produced to this point proved that the patient found a cure from the medicine. The law, thus stated, was conformable, not only to the general principles which governed in charge of felonious homicide, but also to the opinion of the

learned and excellent Lord Chief Justice Hale. He expressly states that if a physician, whether licensed or not, gives a person a potion without any intent of doing him any bodily hurt, but with intent to cure, or prevent a disease, and, contrary to the expectation of the physician, it kills him, he is not guilty of murder or manslaughter. If, in this case, it had appeared in evidence, as was stated by the solicitor general, that the prisoner had previously, by administering this *Indian tobacco*, experienced its injurious effects in the death or bodily hurt of his patients, and that he afterwards administered it in the same form to the deceased, and he was killed by it, the court would have left it to the serious consideration of the jury, whether they would presume that the prisoner administered it from an honest intention to cure, or from obstinate rashness and foolhardy presumption, although he might not have intended any bodily harm to his patient. If the jury should have been of this latter opinion it would have been reasonable to convict the prisoner of manslaughter. For it would not have been lawful for him again to administer a medicine of which he had such fatal experience.

It is to be exceedingly lamented that people are so easily persuaded to put confidence in these itinerant quacks, and to trust their lives to strangers without knowledge or experience. If this astonishing infatuation should continue, and men are found to yield to the impudent pretensions of ignorant empiricism, there seems to be no adequate remedy by a criminal prosecution, without the interference of the legislature, if the quack, however weak and presumptuous, should prescribe with honest intention and expectations of relieving his patient.

The prisoner was acquitted."

The notorious case of medical empiricism, cited *supra*, is the only one I have been able to find, in which the allegation of murder or manslaughter has been founded on the administration of nostrums by charlatans. Followers of the Thompsonian, or as they are pleased to style it at the present day, the "Physio-Medical System" of practice, boast that Thomp-

son was "*discharged without being put on his defence*," as if that was sufficient to raise their "system" to a decent position in medicine. The court recognized that the case was one of culpable ignorance, sounding in fatal damage to others; but it interposed, as it was bound to, the humane rule, that what was done with a *good intention* should not be alleged as a crime, and so the defendant was shielded from a just punishment.

MEASURE OF DAMAGES.

FOWLER *v.* SERGEANT.[1]

"LOWRIE J. There being no definite measure of damages in such cases as these, it is usual to inform the jury of the circumstances of the respective parties, and we see no error in the mode of doing it in this case. It was right, also, to allow the plaintiff to exhibit the injured limb to the jury, because a sight is always better than a description, and the terms imposed upon the plaintiff by the court were for the benefit of the defendant, of which he could not complain, unless he had afterwards asked for more and been refused.

Why the defendant should not compensate the plaintiff for the suffering of a fortnight's unskilful treatment, it is impossible for us to find any reason, and we must say that the court was right; and if the court could not understand why such treatment should continue so long, we cannot say that they were in error in saying so, especially when they left the question to the jury. The neglect to produce evidence that is known to be in one's power is necessarily suspicious, and thus evidence against him; and it was on this principle that the court allowed the counsel to comment on the defendant's failure to call his son, who aided him in his attendance on the case, and we do not see that this was erroneous.

The above remarks relate to the defendant's exceptions.

[1] 1 Grant (Pa.), 355.

But the plaintiff has some likewise, and we proceed to consider them.

This we can do very briefly, for there is really but one thought in them all, as there was but one thought variously expressed in the different parts of the charge complained of. That thought may be fully expressed thus: —

A physician or surgeon is not chargeable for ignorance of a case if he prescribes for it rightfy.

Understanding it thus, it is impossible for us to say that the instructions were erroneous.

Judgment affirmed and record remitted."

Rich et Uxor *v.* Pierpont.[1]

"Erle C. J., in summing up the case to the jury, said the case had taken up a long time, but not longer than its importance either to the character of the defendant or profession to which he belonged most fully justified. It was an action charging him with a breach of his legal duty, by reason of inattention and negligence, and want of proper care and skill; and if they were of opinion that there had been a culpable want of attention and care, he would be liable. A medical man was certainly not answerable merely because some other practitioner might have shown greater skill and knowledge; but he was bound to have that degree of skill which could not be defined, but which, in the opinion of the jury, was a competent degree of skill and knowledge: what that was the jury were to judge.

It was not enough to make the defendant liable that some medical men, of far greater experience or ability, might have used a greater degree of skill, nor that even he might possibly have used some greater degree of care. The question was, whether there had been a want of competent care and skill to such an extent as to lead to the bad result. As to the mistake about the tartaric acid, it turned out to be of no consequence, and the mere error of the nurse in giving it to the

[1] 3 Foster & Finlason's R. 35.

defendant instead of the gin. The medical testimony appeared to be greatly in favor of the defendant; and, considering how much the treatment of the case depended upon its varying phases, which changed as quickly as the shifting hues of the heavens, it was hard for one medical man to come forward and condemn the treatment of a brother in the profession, and say that he would have done this or that, when probably, had he been in position to judge of the case from the first, he would have done no better. Upon the whole of the case, if the jury thought there had been culpable neglect or want of due care or competent skill, let them find for the plaintiff; if otherwise, for the defendant.

Jury found a *verdict for the defendant.*"

Ruddock *v.* Lowe.[1]

"Crompton, J., to the jury. The substantial question for you is, whether the defendant undertook to and did treat the plaintiff for his disorder as is alleged; or it is admitted that the supposed treatment was grossly improper. The form of the counts varies, but upon all of them the substantial question is the same, — did the defendant treat the plaintiff with mercury and so cause him injury as stated.

Verdict for plaintiff, £200."

Jones *v.* Fay.[2]

"Pigott B. The questions for you are, did the defendant undertake to treat the plaintiff for his disorder? Did he do so with either negligence or ignorance? Did this negligent or ignorant treatment cause the injury to the plaintiff? These questions practically resolve themselves into this, — whether the pills the defendant gave the plaintiff were blue pill? For if so, it is admitted that such treatment would be

[1] 4 Foster & Finlason, 519.
[2] Ibid. 525.

improper, and whether given advisedly or by accident the defendant would be equally liable. As regards damages, endeavor to distinguish between the injury caused by the defendant's negligence or ignorance, and that caused by the plaintiff's imprudence.

Verdict for the plaintiff, damages £100."

CHAPTER XIV.

SKILL IN DIAGNOSIS.

FRACTURES.

THE discussion of the question of skill in diagnosis and treatment will be restricted to fractures and dislocations, these forming by far the larger number of the cases that come into courts for adjudication.

The first duty the surgeon has to perform, when called in case of accident, is to determine the nature of the injury. Is it a bruise, a sprain, a dislocation, or a fracture? In injuries near joints, the diagnosis will be often most difficult to make. The rapid effusion and consequent swelling that takes place will tax the surgeon's skill to the utmost, especially when the injury is near the shoulder, the elbow, or the hip-joints. The points claiming the particular attention of the surgeon relate to deformity, shortening or lengthening, preternatural mobility or immobility, and crepitus. The recognition of deformity will be made out by the eye taking the uninjured limb for comparison. It may be necessary to use the "touch" as an aid to the sight, but in this as in all other manipulations the surgeon should exercise the greatest gentleness. It is no mark of surgical attainment to handle a broken limb roughly, neither is it necessary, as a rule. Professor Hamilton, when speaking on this point, says:—

"Nothing, in my opinion, betrays a lack of judgment as well as of common humanity, on the part of the surgeon, so much as a rude and reckless handling of a limb already pricked and goaded into spasms by the sharp points of a

broken bone. It is not enough to say that such rough manipulation is generally unnecessary; it is positively mischievous, provoking the muscles to more violent contractions, increasing the displacement which already exists, and sometimes producing a complete separation of the impacted, denticulated, transverse, or partial fractures, which can never afterwards be wholly remedied; augmenting the pain and inflammation, and not unfrequently, I have no doubt, determining the occurrence of suppuration, gangrene, and death." . . . . "Finally" (after giving instructions, as to the proper method of examining the patient) he says, "if any doubt remains, the limb must be firmly but steadily held, while the necessary manipulations are performed, for the purpose of ascertaining the existence of mobility and of crepitus." Fract. and Dis. 37 (5th ed.).

Prof. Gross says: "Experience satisfies me that few practitioners know how to examine a broken limb. They take hold of it as if they were afraid of causing suffering, and the result, therefore, is often most disastrous. I am far from wishing to be understood as being an advocate of rough surgery; on the contrary, no one abhors it more than I do; and yet there are times and circumstances when the best interests of the patient demand that he should be most thoroughly examined, no matter what amount of pain he may be compelled to undergo. But there is no longer any need of such infliction now that we can prevent suffering by anæsthesia. The patient being rendered insensible, perquisition is performed at the surgeon's leisure, slowly and deliberately, and with an eye to the ultimate result, not forgetting self. The sooner such manipulation is instituted the better, for there will then be less likelihood of inflammatory swelling and other obstacles calculated to embarrass our progress or to obscure the diagnosis." Gross's Syst. Surg. vol. i. p. 860 (3d ed.).

In respect to the use of anæsthetics, Professor Hamilton says he does not often find it necessary to resort to them "for the purpose of insuring quietude and annihilating pain

in making these examinations, since it is seldom that the patient need to be much disturbed; but if the examination is not satisfactory, and the diagnosis is important, I do not hesitate to render the patient completely insensible, after which the question in doubt may be more thoroughly investigated and perhaps definitely settled.

The surgeon ought not to forget, however, that while the patient is under the influence of an anæsthetic, violent manipulations are no less liable to rupture blood-vessels, and to lacerate other tissues, than if employed when the patient is conscious." Fract. and Dis. (5th ed.) 37, 38.

In the country there is a very great prejudice against the use of anæsthetics. This prejudice is encouraged by physicians not familiar with their use and advantages. To such an extent is this the case, that other physicians are deterred from availing themselves of these agencies of so much value to their patients, if not to themselves, for fear that if a bad result should follow, the occurrence would be used to their detriment.

The earlier the patient is examined after the injury the better. If from swelling, &c., the surgeon is unable to reach a satisfactory diagnosis, repeated examinations should be made, during and after the subsidence of these.

Attention should be first directed to the deviation of the limb from its normal condition. Unnatural position, bends in the axis of the bone, loss of function. In fractures and dislocations of the lower extremity, careful measurement with a graduated tape or with a string that will not stretch, should be practised, both in diagnosis and treatment. In diagnosis, to determine the length of the injured limb as compared with the uninjured one. In treatment, for the purpose of determining whether the dressing is keeping the limb of proper length. In fractures of the upper extremity, measurement is of little or no value, except it be in fractures of the humerus. In dislocations of the shoulder it may sometimes be resorted to with advantage. Measurement in injuries of the lower extremity is the rule, in the upper it is the exception.

In fractures of the femur, measurement should always be practised, not once only, but every day, or as frequently as the surgeon may deem it necessary, in order to determine that his dressing is fulfilling its purpose in keeping the broken bone to as near its proper length as the nature of the case will permit.

Preternatural mobility is a sign, present in all fractures, *except impacted*, and should be carefully looked for by the surgeon. Not so important as crepitus, yet being always present it is scarcely less important.

Crepitus, that grating sound *heard* not only by the ear but also *felt* by the hand of the surgeon, is the most valuable of the common signs, but unfortunately it is not always present. The ends of the broken bones may be impacted, as often happens, near the joints, which, with the great amount of swelling, so obscures the nature of the accident that eminent surgeons have been frequently led into error.

Prof. Hamilton (Fract. and Dis. (3d ed.) 34), speaking of general diagnosis says: "Valuable and important as is crepitus in its relations to differential diagnosis, unfortunately it is not always present, and for reasons that must be plainly stated. First: we cannot, in a pretty large proportion of cases, bring the broken ends again into apposition. Whatever mere theorists may say to the contrary, and notwithstanding surgeons up to this time have rarely ventured to allude to this subject, the fact is so that we do not 'set' broken bones. We do not, even at first, bring them into complete apposition, unless it is the exception. I speak of bones once completely displaced by overlapping, and these constitute the majority of examples which come under the surgeon's observation. Second: in transverse fractures of the patella, and in fractures of the olecranon and coranoid processes of the ulna, of the coracoid and acromion process of the scapula, and in all similar detachments of processes and apophyses, the action of the muscles, by displacing the fragments, prevents crepitus from being readily produced. Third: in a few cases, such as certain fractures of the neck of the

femur, of the neck and head of the humerus, &c., the broken ends may be impacted, or so driven into each other, as to forbid the production of motion and crepitus; or they may be simply denticulated, and the consequences, so far as crepitus is concerned, will be the same."

We may remark here, that the diagnosis of dislocations is often made with the greatest difficulty, and may not be made correctly at all, from the great amount of swelling that almost instantly supervenes. Sir Astley Cooper remarks (Dis. and Frac. (Am. ed.) 319), when speaking of the signs of dislocations of the humerus, — and the remarks are equally applicable to fractures of the humerus near either end, — that "but a few hours make the appearances much less decisive, from the extravasation of blood, and from the excessive swelling, which sometimes ensue; but when the effused blood has become absorbed, and the inflammation has subsided, the marks of the injury become again decisive. At this latter period it is that surgeons of the metropolis are usually consulted; and if we detect a dislocation which has been overlooked, it is our duty, in all candor, to state to the patient that the difficulty of detecting the nature of the accident is exceedingly diminished by the cessation of inflammation and the absence of tumefaction. It may also be observed that there is great difference in the facility with which the accident is discovered in thin persons of advanced age, and in those who are loaded with fat, or who have by constant exertion rendered their muscles excessively large." He remarks, previously, in his general observations on dislocations, that "it must be borne in mind that where fibrinous effusion has taken place, as generally happens in inflamed joints, we may have sounds that no skill can determine the nature of, especially in such cases as above described." See also Ashurst's Princip. and Prac. of Surg. 270–1.

HARPER, age twenty-one years, was run over by wheel of wagon, breaking both bones of right leg above ankle. Was

dressed on lateral tin splints, not tightly, on account of abrasions on skin. Extension was kept up by weight and pulley. Was removed home on the twenty-first day, a distance of ten miles, the leg being secured by a starch bandage. The fifth week there was yet no provisional callus in front of tibia. Limb looked well, but on moving it passively there was distinct crepitus. This continued the seventh, eighth, and ninth weeks, and crepitus could be distinctly located at several points from ankle to knee. It was impossible to say whether crepitus was *true* or *false*. Friction was employed and patient directed to get out on crutches. Crepitus finally disappeared after the fourteenth week.

DISLOCATIONS.

DISLOCATIONS, as a rule, are characterized by preternatural immobility, and when reduced do not need support to retain the bone in position; alteration in the axis of the limb and absence of crepitus. Extensive laceration of ligaments and muscles may permit extreme mobility. Sometimes, however, after reduction, the bone has a strong tendency to redislocation and will not remain in place without support. False crepitus may also be present and surgeons of *more* than "ordinary skill" fail to determine its nature. The pain, swelling, and discoloration present with fractures, in dislocations, are generally augmented. Observation of the above characteristics will usually carry the surgeon safely through, unless there be both fracture and dislocation, in which case the difficulty in diagnosis will be most annoying. The following case illustrates these difficulties well: —

W. J. A., dentist, age twenty-five, was thrown from a horse, Nov. 21, 1872. I saw him within three quarters of an hour. The force of the fall had been received on the left fore-arm and arm. The chief injury was located in and around the elbow-joint. Found him with fore-arm flexed at a right angle; elbow very much swollen; no particular difficulty in

passively extending and flexing fore-arm ; pronation and supination not more impaired than they would be from pain and the swelling of the muscular tissues. The patient was quite faint from shock ; rotation of head of radius could not be felt on account of tumefaction ; in extended position, rotation developed crepitus. Passing fingers up the ulna discovered a depression about an inch and a quarter to an inch and three quarters below point of olecranon; flexion of the arm increased this depression somewhat; there was a sharp, projecting edge on upper fragment, which was quite prominent when fore-arm was flexed. Diagnosed fracture of the olecranon process at its base.

Never having seen a fracture of this part, in my own experience or the experience of others, and carrying in my mind that there was a difference of opinion as to the position in which the arm should be dressed, I went to my office to prepare a splint and consult my authorities on the subject. The weight of authority being in favor of the straight position, it was so dressed, on a long tin gutter splint applied to front of the arm, secured by a roller bandage figure of eight around the joint. This dressing was continued till the afternoon of the 23d, when, at patient's request, it was left off for a few hours. The patient had found it necessary, on account of the swelling and pain, to cut the figure of eight bandage several times since first dressing. The arm was dressed twice a day for the first three or four days. While the splint was off, had him apply water dressing, of such temperature as was most agreeable, arm being kept in extended position. Had the arm wet frequently since the first dressing with camphor spirits, tinct. arnica &c. The swelling commenced subsiding by the 24th, the pain being much less. There was by this time a very great amount of ecchymosis developed upon the inner and upper portion of the arm as high as the axilla. I had told patient that at the end of third week I would put in practice passive motion. Patient went to another county the third week (20th day) of the treatment, and did not return for about ten days. During his absence,

several surgeons saw the arm and thought it was doing well. When I next saw him, the swelling had in a great measure subsided; there was some ability to flex and rotate the arm by means of the other hand. There was at this time, and there continues to be, that grating sound, resembling crepitus, which I refer to inflammatory exudations. The fragments appear to have become united with but little separation. There is a slight excess of projection in the vicinity of the outer condyle, or perhaps as low as the head of the radius. This is, doubtless, the displaced fractured external condyle. The depression at seat of fracture of olecranon is easily recognized; both flexion and rotation under passive and active exercise seemed to be, at this time, Jan. 14, 1873, improving. Subsequently, acting upon the advice of Drs. Hamilton, of Galesburg, and Reece, of Abingdon, Ill., I placed patient under the influence of an anæsthetic and forcibly broke up the anchylosis. Immediately after the operation, flexion and extension could be easily made passively, but the resulting inflammation was considerable, and patient refused to make such constant motion as was required, and the joint became again anchylosed, the arm being in an extended position. The projection at external condyle, in a few moments after the arm was forcibly flexed, became obscure, and it was thought by the gentleman who assisted me, that perhaps what we had taken for the fractured condyle, was the dislocated head of the radius, and that it was replaced by the forcible flexion. This may have been so, as while the forcible flexion was being made, there was also considerable extension made, and the limb was in the right position to allow of the reduction. This operation was done about three months after the injury, and now after three years there is not the slightest motion at the joint. The muscles of the arm are excessively atrophied, while those of the fore-arm have as fine a development as before the injury. The almost straight position of the fore-arm with the arm does not materially interfere with the pursuit of his occupation.

The difficulties here presented were: 1. Danger of separa-

tion of fragment of olecranon. 2. The fracture being so low down, the joint might be implicated, and there would be permanent anchylosis from osseous deposit in the joint. 3. Fracture so low down that the head of the radius would be intruded upon by callus, and so rotation be impaired. 4. Dislocation of head of radius backwards or outwards, or fracture of the same. 5. Fracture of external condyle. The true condition of the arm could not at the time, on account of the excessive swelling and pain, be made out. The diagnosis is, now, after all swelling has passed away, only a matter of probability.

A study of the cases of alleged malpractice in cases of injuries about the joints will show the great difficulty attending their diagnosis. Where swelling has occurred, or in fat or very muscular persons, the difficulties are enhanced. Even after all the inflammatory conditions are removed and the joint permitting a very thorough examination, by reason of absence of pain, surgical experts are frequently unable to arrive at a unanimous opinion as to what may be the true condition.

In dislocations of the shoulder, Prof. L. A. Dugas, of the Medical College of Georgia (Trans. Am. Med. Association, vol. x. p. 175), has enunciated the following principle of diagnosis: "If the fingers of the injured limb can be placed by the patient or by the surgeon upon the sound shoulder, while the elbow touches the thorax, *there can be no* dislocation; and if this cannot be done, there *must be* a dislocation. In other words, it is *physically impossible* to bring the elbow in contact with the sternum or front of the thorax if there be a dislocation; and the inability to do this is *proof positive* of the existence of dislocation, inasmuch as no other injury of the shoulder-joint can induce this inability." This sign is common to all of the dislocations of the shoulder, and hence the test should never be omitted in case of doubt.

It should be borne in mind that after union of fractures through the tuberosities of the humerus, or in fractures above the surgical neck of the humerus, there may be a sim-

ulation of an unreduced dislocation of humerus beneath coracoid process. See paper of J. Hutchinson, surgeon to London Hospital, Medical News and Library, May, 1875.

In dislocations of the hip there is either lengthening or shortening of the limb with an unnatural position of foot and toes, this being usually so well marked the diagnosis is more readily made than it is in dislocations of the shoulder.

Diagnosis is the science of probabilities founded upon a knowledge of anatomy and pathological states. The greater this knowledge and common sense the more skilful the diagnostician. The surgeon who faithfully considers these tests and promptly applies them to the elucidation of his case, has skilfully performed his duty in diagnosis.

CHAPTER XV.

SKILL IN TREATMENT.

FRACTURES.

WHAT constitutes skill in treatment? The same general rule, that was laid down in the chapter on "Skill in Diagnosis," in respect to the handling of the injured limb and in moving the patient, should be observed, namely, to be as gentle as the nature of the case will permit.

The indications of treatment are four in number, viz.: —

1. To put the fragments in *as near apposition* as possible;
2. To keep them in this position;
3. To keep down or allay spasm and undue inflammation;
4. To manage the accidents that may occur during treatment.

The first indication is accomplished by gentle extension and counter-extension, with pressure and counter-pressure at the seat of the fracture;

The second by splints, bandages, and a continuance of the extending and counter-extending force;

The third by anodynes, water-dressings, &c.;

The fourth by treatment the nature of the accident may require.

1. *Bandages.* Let me call the attention of surgeons, especially the junior practitioners, to the *danger* of using the "*primary*" or "*initial*" bandage. Notice how many cases come into courts, in which this is one of the apparent causes of trouble. *Steele* v. *Newton; Wilmot* v. *Howard; Scudder* v. *Crossan; Kendall* v. *Brown; Volmuth* v. *Hathaway.*

The older surgeons were in the habit of applying this

dressing to a broken limb before applying the lateral splints. Prof. Gross, who is a most eminent authority in matters pertaining to surgery, in his article on bandaging, System of Surg., vol. i. p. 468 (3d ed.), advocates its use, but he says further, "When the hand of a *master* is not present to direct and guide our practice, the result may frequently be most disastrous both to the patient and surgeon." This qualification is just what a vast number of practising surgeons lack; especially the junior members of the profession do not have it, as a rule. He says further (Ib. p. 867): "Too much caution cannot be observed in the use of the bandage in the treatment of fractures. It is an agent for good or for evil; for good, if applied properly; for evil, if applied improperly."

The object to be attained by it, *i. e.*, support of the muscles and thus prevention of their contraction, and the protection of the limb from direct contact with the sides of the splints, are desirable. The same end, however, can be reached as well by properly padding the splints, and by the use of the roller bandage in retaining them. The danger of so ligating the limb as to occasion congestion, inflammation, and gangrene is so great, by such dressing, that the surgeon would hardly be held "not guilty," who should use it. I would here, therefore, enter my earnest protest against the use of this dressing. In my first case of fracture of the leg, another surgeon, presuming on his seniority in practice, applied such a dressing, contrary to my objection. (I was then just from the instruction of the late Prof. Daniel Brainard, of Chicago, who earnestly condemned the practice.) The sequence was a narrow escape from a suit for malpractice. I was exonerated from blame in the case, inasmuch as I had two *intelligent friends* present, who were witnesses to the protest.

Dr. Ashurst remarks (Princip. and Prac. of Surg., 223–6): "Circular compression is to be carefully avoided, as swelling is inevitable after a fracture, and the risk of gangrene from this cause is by no means only theoretical. Hence, as a rule,

in the early stages of fractures, *no bandages should be applied beneath the splints.* Gangrene is the most serious accident which can be met with in the treatment of a simple fracture, and may be due either to arterial obstruction at a point above the seat of fracture, to venous obstruction due to swelling of the part, or to too tight bandaging, or to a combination of these causes. With regard to tight bandaging, it is to be remembered that a bandage may be sufficiently loose when applied, and yet in a few hours may become the cause of great constriction from subsequent swelling of the limb; hence the importance of not *applying a bandage beneath* the splints; it is, as remarked by Mr. Erichsen, almost invariably to a neglect of this rule that the occurrence of gangrene from the pressure of a bandage is due. Especially is this true in the case of the fore-arm, in fractures of which part this accident most often occurs. It should not be forgotten, however, that this accident may be partly or entirely due to arterial obstruction, which is, of course, an unavoidable occurrence; hence we should not be too hasty in accusing a fellow-practitioner of malpractice on account of such an accident, for it may be really due, at least in some measure, to causes entirely beyond control. The *treatment* of gangrene occurring under such circumstances must vary according to its nature and extent; if it be due to constriction, and the surgeon fortunately discovers it in time, he must instantly remove the bandages, when possibly the patient may escape with superficial sloughing. If complete gangrene has occurred, amputation of course becomes necessary; if the disease show a disposition to self-limitation, the surgeon may await the formation of the lines of demarcation and separation; but if the gangrene be of the rapidly spreading traumatic variety, immediate removal of the limb must be practised at a point above the furthest limits of the disease." [1]

In Syme's Surgery, by Newton, p. 339, we find the "im-

[1] GAMGEE, On Treatment of Fractures of the Limbs, advises circular compression of the limb at the seat of fracture, — advice all the more dangerous, coming from such an eminent surgeon. Am. Jour. Med. Sciences, April, 1872, p. 495.

movable dressing" condemned, for the reason that it "is not only tedious and requiring great nicety in its execution, but unless it be carefully watched must expose the patient to the risk of mortification or other bad consequences, from *alteration in the size of the limb subsequently to its adjustment.*" This is precisely the danger to be apprehended from the "initial bandage." The editor himself says, in his notes on the dressing of fractures: "It should be the object of the physician to incumber the limb with as *few* coverings as possible. The entire object being to keep the ends of the bones in position; *whatever may be done beyond this will be manifestly injurious.*" Ib. 340.

2. *Setting.* Dr. Ashurst, in speaking of the reduction or "setting" of fractures, says that "it consists in replacing the fragments by manipulation as nearly as possible in their normal position as regards each other. I say advisedly, 'as nearly as possible,' for I believe with Prof. Hamilton, that it is only in exceptional cases that the displacement of fractures can be entirely overcome."

I have been induced to quote thus largely from Ashurst because he is one of the latest writers on the subject, and stands high as a teacher and practitioner. To him and to Prof. Hamilton the profession owes a debt of gratitude for the *honest* statements they have made, in respect to the conditions that obtain in the matter of fractures.

3. *Time for.* The next question that claims our consideration is, when should a fracture be reduced — immediately, or not till the inflammatory action consequent upon the injury has been subdued? "No greater absurdity and cruelty are conceivable than leaving the fracture unadjusted." Liston's Elements of Surg. (Am. ed.), 581. "Five good reasons why broken bones should be reduced as soon as possible: 1. When the injury is recent, the muscles offer less resistance; 2. Their resistance is increased not only by reaction but also by actual adhesions between their fibres; 3. Effusion distends both the muscles and the skin, and compels the limb to shorten; 4. The constant goading of the flesh by the sharp points of the

broken bones increases the muscular contractions; 5. The patient will submit readily to manipulation and extension at first, but after the lapse of a few days it is very seldom that he will permit the limb to be in any manner disturbed, even if he is assured that his refusal entails upon him a great deformity." Hamilton, Frac. and Dis. (3d ed.), 44 *et seq.* "It appears singular that upon a subject so clear as this, there should be any difference of opinion. It certainly requires no great knowledge of the nature of accidents to discover why such cases should receive the earliest possible attention: as long as the ends of the fragments are permitted to remain apart, their tendency inevitably must be to excite spasm and inflammation, thereby increasing the suffering of the patient and retarding his cure." Gross, vol. 1, 865. "As a broken bone is a constant source of irritation to surrounding parts, and the periosteum is liable to be separated to a greater extent in proportion to the spasmodic motion of the muscles, it is singular that any doubt could exist as to the advantage of setting a fracture as soon as possible." H. H. Smith, Op. Surg., vol. 1, 540. "Reduction should be effected *as soon as possible*, for the reason that it is much easier for the surgeon and much less painful to the patient, if done before the development of inflammation; if, however, the patient is not seen until a later period, or if displacement should, from any cause, have recurred, the surgeon need not hesitate at any stage of the case to effect as perfect a reduction as he can, for the slight additional irritation thus produced will be of much less consequence than the evils which would result from continued displacement." Ashurst, Princip. and Prac. Surg.

Failure to reduce a fracture promptly would constitute negligence, which we shall consider more in detail when we come to treat of the accidents liable to occur during the cure of a fracture.

4. *Extension and counter-extension.* The reduction being effected, means must be provided to keep up extension and counter-extension, and also means must be used to prevent lateral and antero-posterior flexion at seat of fracture. With

the exception of fractures of the lower extremity and the humerus, these ends are accomplished by the use of splints, pads, and bandages alone. In fractures of the humerus, the extension is provided for by leaving the elbow and a portion of the upper part of fore-arm unsupported by the sling in which the hand and lower part of fore-arm rests, the weight of the elbow and fore-arm thus acting as an extending force. Directly the opposite course should be followed in fractures of the neck of the scapula and the acromion and coracoid processes. Here the weight of the arm would be apt to draw the distal fragment away from its normal position, hence support to the point of the elbow is the proper treatment.

In fractures of the lower extremity, especially of the femur, we are, except in certain cases, which will be indicated, obliged to use other means for the prevention of shortening. The means advised are various. In fractures of the leg (tibia and fibula), surgeons most frequently depend upon position and splints alone to secure extension and counter-extension. Among eminent surgeons who adopt this plan, may be mentioned, Gross, Hamilton, Bauer, Salter, Welsh, Hodgen of St. Louis, and others. See paper on resistance of muscles by Dr. Montgomery in Am. Jour. Med. Sci. for July, 1872.

Hamilton remarks (Fract. and Dis., 493, 5th ed.): "It is only occasionally that in fractures of the leg, permanent extension and counter-extention can be employed; an assertion which, however much it may excite surprise, experience will prove true."

Gross says (Syst. of Surg., vol. 1, p. 935, 3d ed.): "The most simple contrivance for the *treatment* of fracture of tibia is a tin case, accurately shaped to the limb, provided with a foot piece, and reaching a few inches above the knee. A bandage is applied in the usual manner, and any tendency to displacement is easily counteracted by means of a compress, arranged so as to bear gently and equably upon the ends of the fragments. I have never found it necessary to employ any other apparatus than this, no matter where the tibia was broken. When the fracture involves the malleolus,

(ankle-joint), the *foot*-piece will effectually prevent displacement."

There have been numerous methods devised by surgeons for the purpose of securing extension. Among these devices may be mentioned Hutchinson's, Neil's, Gilbert's, Crandall's, the double-inclined plane, Jarvis's Adjuster, and its modification and patenting by a man in New York, all of which but illy subserve the purpose for which they were designed, — that of Neil, extension being secured by means of adhesive strips, being the most unobjectionable. The device suggested by Dr. Montgomery, Rochester, New York, is also one of great value. It is simply a wooden sole the width and length of the foot, to which it is attached by adhesive strips. Extension is secured by a cord which passes through the sole in the line of the axis of the leg. This cord is carried over a pulley in the usual manner. For difficulties in applying extension, see his paper, Am. Jour. Med. Sci., April, 1871.

In fractures of the shaft and upper end of the femur, there has been a difference of opinion as to what position the limb should be kept in during the process of repair. Dr. Ashurst, in his remarks upon the subject, says: "I have no hesitation in expressing my preference for the treatment of these injuries by means of the *straight position with moderate extension*, whenever that mode of treatment is applicable. In cases of *impacted fracture*, extension is undesirable, and such cases may be treated by position alone, the joint being fixed by means of the long splint, in any of its varieties, or simply supported by means of heavy sand bags placed on either side of the injured member. If the fracture be *unimpacted*, the same treatment should be employed, with the addition of moderate extension. *Counter-extension* may be made by means of a perineal band fastened to the head of the bed, or, which is usually sufficient, simply by elevating the foot of the bed, thus utilizing the weight of the body itself as the counter-extending force. It is right to say that there are certain cases, especially of intra-capsular fracture, in old persons, in which *no apparatus* can be borne, and in which

even confinement to bed is fraught with dangerous consequences; under such circumstances the injured limb should be simply laid across pillows, as recommended by Sir Astley Cooper, until the pain and inflammation which attend the injury have subsided, the patient being then allowed to get up in a chair or on crutches; bony union, under such circumstances, cannot be hoped for, and the *general* rather than the *local* condition of the patient should be the object of attention." Princip. and Pract. Surg. 259–60.

For the dangers attending an excess of the extending and counter-extending force, the reader will profit by examining the Transactions of the last (May, 1872) meeting of the American Medical Association, Surgical Section. I abridge: "Dr. Sayre, of New York, thought that the treatment by extension and counter-extension was being carried too far. Every ounce of force applied beyond that necessary to bring the fragments into exact adjustment was injurious; every ounce short of this was insufficient. Dr. Mussey, of Cincinnati, had a case under extension six weeks, with no union. He then took off extension, and union soon followed. A delegate from South Carolina thought non-union scarcely ever due to over-extension. Non-union was as frequent under the long splint as under the weight and pulley — perhaps more so. Dr. E. M. Moore, of Rochester, thought the weight and pulley gave better results than the straight splint of Desault, but we had become so anxious to avoid all shortening that we often put on too much weight. In transverse fractures, if the limb was kept in its full length, the fragments, though at first in contact, would soon become slightly separated by the absorption of the spicula of bone projecting from their ends; and non-union would ensue. Dr. A. C. Post, of New York, thought the limb might be lengthened by too much extension, even by extension not sufficient to cause discomfort. Examining and measuring all the compound fractures of the thigh under treatment in the Washington Hospitals, toward the close of the war (where he found Buck's extension giving incomparably the best

results), he had discovered one case of slight elongation in an adult. Dr. Gurdon Buck, of New York, claimed for this method (extension by adhesive plaster, pulley, and weight, counter-extension by raising the foot of the bed), which bore his name, that it offered the most efficient means of maintaining uninterrupted extension without discomfort to the patient. It was especially adapted to children. In all his experience but one case of non-union was fairly attributable to over-extension ; this was the case of a healthy adult, and the surgeon having the case in charge had, during the whole treatment (ten weeks), kept on a weight of more than twenty pounds. The case had suggested a rule which he had since followed, not to maintain a heavy weight, with hope of securing an unshortened limb, beyond the first fortnight. Dr. Gregory, of Mo., thought that elongation of the limb in young subjects, where the fracture was in the lower third of the femur, might be readily explained by increased growth of the epiphysis from fluxion to the part. Non-union might be due to many other causes, some of them obscure. The obstinacy of Dr. Buck's case would seem to imply that there was some other influence at work to prevent repair than the twenty pounds' extension." Medical Record, June 15, 1872.

The question of extension and counter-extension was again brought up for discussion, at the meeting of the Association, in 1874. Upon this occasion Prof. L. A. Sayre presented a report on fractures accompanied by a tabulated statement of thirty-one cases treated at Bellevue Hospital.

After defining "accuracy of adjustment" to be "the perfectly normal condition of the bone, as to length and position," his "plan is to dispense with all *continuous* extension and counter-extension, as useless and injurious." Report on Shortening in Fractures, to Ill. Med. Soc., 1875. Dr. Pierce, Lemont, Ill.

But this table shows a want of "accuracy of adjustment," in the fact that many of the cases show shortening. See Table B, Prognosis in Fractures.

Two months subsequent to the Report of Prof. Sayre, Prof. Hamilton published in the New York Med. Jour. (Aug. 1874) the result of treatment, of twenty-two cases with, and nine cases treated without the "apparatus immobile." See Table C.

It is only in fractures of processes that lengthening of fractured bones would be complained of. The muscular contraction would tend to draw the process away from the shaft or body of the bone, hence the necessity of so dressing the part that the fragments would be kept in as near apposition as possible. For this reason, in fractures of the olecranon, the parts should be kept in the straight position, else by the action of the triceps muscle the process would be carried so far from the ulna, that the power of extension would be thereafter lost. The great danger to be apprehended in fractures of this joint is anchylosis, and this will occur irrespective of the position in which the arm is dressed.

The action of the muscles in separating the fragments is also illustrated in fractures of the patella, acromion and coracoid processes of the scapula, and in all similar detachments of processes and apophyses.

5. *Splints.* In fractures of the humerus, radius, ulna, femur, tibia, and fibula, splints are requisite. The substances from which these are made is not material. Lead, sheet-iron, wire, zinc, tin, horn, whalebone, straw, rushes, reeds, wooden splints, so they are *not* carved ones, warranted "to fit *any* limb," felt, paste-board, binders-board, leather, heavy Manilla paper, gutta percha, and for immovable dressing, the different forms of starch, dextrine, shellac, and plaster of Paris dressings.

Attention should be paid to their construction rather than to the material. The points to be aimed at, are, to have them *wider* than the limb; of proper length, neither too short nor too long; with portions cut away so that undue pressure will not be inflicted on bony prominences; and *well-padded.* If they are covered, as recommended by Professor Hamilton, the retentive bandage can be sewed to the edge, and they will be less likely to become loosened and displaced.

For fractures of the humerus a splint curved so as to fit the top of the shoulder will insure all the quietude the joint is capable of; it usually has associated with it a shorter inside splint.

For fractures of the radius and ulna the splints should reach from the elbow to middle of hand or tips of fingers, except the fracture be above the middle third, when they need not be so long. The "pistol splint," so frequently spoken of in these cases, is simply a splint curved more or less on its edge, at one end like a pistol handle. It has been variously modified by different surgeons, notably by Ham ilton, Bond, E. P. Smith, G. F. Shrady, Hays, Nelaton, Robt. Smith, and Erichsen. The last three "recommend this peculiar form only in the dorsal splint;" while the others, with most other American surgeons, "place the pistol-shaped splint against the palmar surface of the fore-arm and hand" Prof. Stephen Smith, of New York, than whom there is no better surgical authority, employs only straight splints in the treatment of fractures of the fore-arm. Care must be taken that the palmar splint is not applied too high upon the arm, lest when the fore-arm is flexed too strong pressure be made in the bend of the elbow, by its upper end.

Splints for fracture of lower extremity have already been referred to. For fuller information the reader is referred to works of Hamilton, Gross, Ashurst, Smith, Holmes, and other standard writers on Surgery.

If there was nothing more, the innumerable forms of splints that have been recommended for the treatment of fractures would show the immense difficulties of such treatment.

6. *Fracture-beds.* To a man with a broken thigh or leg, a comfortable bed to lie upon is of the first importance. "The practitioner who fails to give the proper instructions respecting it is guilty of gross dereliction of duty." Gross, Surg., vol. 1, p. 865. On the same subject Hamilton remarks, when speaking of fractures of the thigh (Fract and Dis., 445, 5th ed.): "Where some form of fracture-bed cannot be procured, or extemporaneously constructed, and the patient is

compelled to lie upon a common cot-bedstead, or a common post-bedstead, or upon the floor, I cannot think the surgeon ought to be held in any degree responsible for the result." H. H. Smith is equally decided in respect to this matter. He says (Op. Surg. vol. 1, p. 606): "If the patient has a fractured thigh, leg, or cranium, or any injury by which he is likely to be confined to his bed for some days or weeks, the bed upon which he is to lie must be prepared for that purpose."

7. *Complications.* After the reduction of a fracture, and the application of those means for the retention of the broken bones in apposition, attention must be given, every day, or twice a day, if possible, to the accidents that may follow the injury or the dressing. Paralysis of the bladder, especially in elderly patients, demands care. So, also, erysipelas, delirium tremens, and tetanus, may call for treatment. Bed-sores, and ulcerations from too long continued pressure are among the most frequent sequelæ. Ulceration is particularly apt to occur upon the heel, or upon the internal or external malleolus. This trouble is to be obviated by shifting the pressure to some other part of the limb. Ulceration upon the heel can generally be prevented by a bladder, distended with air or water, placed beneath the heel, and changed as often as necessary, or by a wide rubber band passing beneath the limb and attached to the upper edge of the splints, or even by a piece of cloth attached in the same manner. The perineal bandage and double-inclined-plane, it is hoped, will soon be, if they are not already, classed among the things that were. When this has been accomplished we shall hear no more of perineal ulceration, which so frequently follows this doubtful form of dressing.

DISLOCATIONS.

The indications of treatment are chiefly three, viz.: —

1. To replace the bone in its normal position.
2. To prevent its re-dislocation.

3. To keep down and allay undue inflammation, and restore the functions of the limb.

The first indication is accomplished by extension and counter-extension, or by manipulation alone, which is the preferable mode, as it is generally the least painful, least apt to inflict additional injury upon muscles and ligaments, and may succeed where extension and counter-extension would fail. Manipulation consists simply in rotating the head of the bone towards the socket, from which it has been dislocated, causing it to pass back in a reverse manner to the one by which it left its proper position.

The second is accomplished, in the upper extremity, by bandages and slings, keeping bone in such a position as will tend to prevent its re-displacement. The same end is attained in the lower extremity by rest, usually in the recumbent position.

The third indication is met, as in fractures, by proper regimen, anodynes, water-dressings, and subsequently by stimulating and anodyne liniments, fomentations, methodical frictions, pressure, and passive motion.

The great importance of dislocations, difficulties in diagnosis, &c., would seem to require a more extended notice in this connection, but on account of their importance the reader is referred to standard works upon this form of injury.

AMPUTATIONS.

In respect to amputations there is much error prevalent. The people suppose that whoever has performed an operation of this character must necessarily be an eminent surgeon. The profession, on the other hand, is of opinion that almost any one can perform the operation. It is here that errors in judgment should be followed by punishment, if ever. It is not the mechanical skill that would be called in question, as much as the decision in respect to the necessity for the operation. To determine questions on this point requires the highest degree of surgical skill and judgment.

The necessity being answered in the affirmative, we have

then to determine at what time the operation should be performed. During "shock," or the period of reaction? Consideration of this question is of the greatest moment to the patient. "Postpone a resort to the knife until there is satisfactory evidence of reaction; until, in a word, warmth and color return to the surface, the pulse beats vigorously at the wrist, and the sufferer regains, in some degree, his consciousness and courage. On the other hand, care is taken not to wait until the part or system are assailed by inflammation, which, under such circumstances, often extends with frightful rapidity, placing the case, perhaps literally beyond the resources of surgery, in the course of a few hours. There is, therefore, a time when interference must be avoided, not less than when it must be courted. The limits of these periods are not always well defined, and hence must be left, in each individual case, to the judgment of the attendant." Gross's Surg. vol. 1, p. 498.

"I am now prepared to affirm, that the period of reaction, or the primary period, is the best point of time for amputation, and that the immediate or period of shock is not the best, but that, on the contrary, it is an imminently dangerous period; and yet I would make an amputation then, if the patient were bleeding to death, and I could not tie the arteries, or if there were spicula of bone projecting into the nerves and producing spasms; or, if the limb were nearly severed by a cannon ball." Hamilton, Lecture on Amputations; Med. Record, vol. 1, p. 330. See, also, Pennsylvania Hospital Reports, vol. 1, p. 149.

It will be seen from the foregoing that "skill" will not be shown, alone, in the mere operation of removing the limb, but underlying and preceding the operation there are questions to be determined of vastly more importance. Nor are the questions just reviewed the only ones. Of no less importance is the question, At what point shall the operation be performed? The older surgeons had points, which they termed "points of election." "As these points have been so frequently changed, indeed, never fully established, modern

surgery has formulated a rule upon which to declare the 'place of election.' It is this: inasmuch as the fatality following amputations diminishes as we get farther and farther away from the body, the practice now is very generally adopted, to amputate at that point at which we can save the most of the limb." This rule is *not*, however, applicable to amputations a few inches below the knee; here the "point of election" is the knee joint.

Regard is also had to the method, whether by the circular or flap operation. This is not of so much importance, good results depending more upon the subsequent treatment. As to this, the same general rules applicable to fractures and dislocations are appropriate. The resulting hemorrhage will need the surgeon's especial care.

CHAPTER XVI.

PROGNOSIS IN FRACTURES.

TABLES.

CASES numbered by figures are derived from Professor Hamilton's Report on Deformities after Fractures, made to the American Medical Association, and published in its Transactions for the years 1855–6–7. So large a number of cases as he has presented were never tabulated before. They are of the greatest value, showing, as they do, what has and has not been accomplished by surgeons in different countries, in the treatment of this class of injuries.

Cases numbered by letters and Roman numerals have been tabulated from my own examinations, from private correspondence, and from medical journals. These will supplement, to a slight extent, the tables of Professor Hamilton.

With but few exceptions, there are no gunshot or railroad injuries reported in these tables.

TABLE I. — HUMERUS.

Fractures of Anatomical Neck and Head.

Professor Hamilton, in his report, describes ten cabinet specimens : —

1. Irregular deposits of bone.
2. Irregular callus. Shaft completely rotated.
3. Slight callus. Slight impaction.
4. Suppuration ensued. A year after, Brainard, of Chicago, removed the fragment.

5. Suppuration ensued. Fragment became loose, necrosed. Three months after, Brainard removed it.

6. Broken at junction of head with shaft and through tuberosities to half inch below the greater.

7. Similar to No. 6. No union.

8. Through both anatomical and surgical necks. Articulating surface of head turned so as to unite with shaft; broken surface of head articulates with glenoid cavity.

9. Fragment slightly displaced.

10. Head united to shaft at right angles.

TABLE II. — FRACTURES OF THE HUMERUS.

Upper Third. (*Separation of Epiphysis.*)

No.	Age when it occurred.	Time since it occurred.	Sex.	Right or left side.	Character of the Fracture.	Treatment.	Result.				
							United or not.	When united.	Amount of Shortening.	Remarks.	Perfect or Imperfect.
1	13 m.	5 m.	M	L	Simple.	Sling, &c.	N. U.	–	–	Cannot raise his arm.	Im.
a	19 y.	3½ m.	M	R	Compound.	—	–	–	–	Necrosis, tardy cure *M. & S. Reporter*, vol. 13, p. 190.	Im.
b	14 y.	1 m.	M	R	Simple.	Swinburne's dressing.	U.	1 m.	–	*Med. Times*, June 13, 1874.	P.
c	16 y.	1 y.	F	–	Simple.	Swinburne's dressing.	U.	5 w.	–	*Med. Times*, June 13, 1874.	P.
c	6 y.	3 m.	M	–	Simple.	Swinburne's dressing.	U.	–	–	*Med. Times*, June 13, 1874.	P.
e	18 y.	3 m.	M	L	Simple.	Swinburne's dressing.	U.	–	–	See *Med. Times* for this fract. simulating dislocation.	Im.
f	13 y.	2 w.	M	–	Simple.	Supposed dislocation.	N. U.	–	–	*Med. Record*, May 1, 1874.	–
g	16 y.	2 m.	M	L	Simple.	Splints, dislocation.	–	–	1 in.	See above paper for errors in diagnosis.	Im.
h	9 y.	3 w.	–	–	–	—	N. U.	–	–	Supposed at first to be fract. of acromion. *Ibid.*	Im.
i	18 y.	–	M	–	–	Splint & sling.	U.	–	–	See same paper.	Im.

TABLE II.—FRACTURES OF THE HUMERUS (*Continued*).

Surgical Neck.

No.	Age when it occurred.	Time since it occurred.	Sex.	Right or left side.	Character of the Fracture.	Treatment.	Result.					Perfect or Imperfect.
							United or not.	When united.	Amount of Shortening.	Remarks.		
2	65 y.	1 y.	M	R	Simple.	Dressing first week.	U.	–	–	—	—	P.
3	62 y.	2 m.	M	R	Simple.	One long gutta percha splint.	U.	–	–	—	—	P.
4	12 y.	4 m.	M	L	Simple.	One long gutta percha splint.	U.	21 d.	1 in.	Motion unimpaired, lower fragment projects forwards.		Im.
5	43 y.	2 y.	M	R	Simple.	—	N. U.	–	1 in.	—	—	Im.
6	15 y.	10 m.	M	L	Simple.	Lateral splints, &c.	U	10 d.	1½ in.	Motion unimpaired; fragments project forwards.		–
7	30 y.	6 w.	M	L	Compli-cated.	Lateral splints, pad in axilla, &c.	U.	6 w.	–	Motion of joint perfect.		P.
8	23 y.	6 w.	M	-	Compli.	Lateral splints.	U.	6 w.	–	Very slight bend.		P.
a	45 y.	2 y.	M	L	Trans-verse.	P. Paris, ball in axil.	U.	5 w.	No.	Disloc. head in axil., Reeder, Lacon, Ill.		P.
b	52 y.	4 m.	M	L	Trans-verse.	Hamilton's splint.	U.	6 w.	No.	wer frag. slightly forward. Self.		Im.
c	66 y.	6 m.	F	L	Oblique.	Three splints.	U.	6 w.	1 in.	Wanzer, *Chicago Med. Jour.*, July, 1867.		Im.
d	74 y.	–	M	–	Simple.	Roller bandage and position.	U.	–	–	Ashurst, *Am Jour. Med. Sci.*, July, 1866.		–
e	9 y.	–	M	R	–	—	U.	–	–	Ashurst, *Am. Jour. Med. Sci.* July, 18 .		–

Shaft. (*Upper Third.*)

9	54 y.	3 y.	M	R	Simple trans.	Lateral splints and paste bandage.	U.	–	–	Case of fragilitas ossium. Eighteen months aft. broke left humerus; broke right arm again in 18 months.	P.
10	11 y.	8 w.	M	–	Simple.	Lateral splints.	U.	8 w.	–	—	—	P.
11	30 y.	2 m.	M	L	Simple oblique.	Lateral splints, paste bandage.	U.	38 d.	–	Complicated with delirium tremens.		P.
12	38 y.	6 m.	M	L	Simple oblique.	Lateral splints.	U.	5 m.	½ in.	Use of limb perfect.		Im.
13	35 y.	22 d.	M	R	Compli-cated.	Lateral gutta per. & paste splints.	N. U.	–	–	Died 22d day.		Im.
a	41 y.	2½ y.	F	R	Simple.	4 wood splints.	U.	5 w.	½ in.	Hamilton, Galesb'g, Ill. No deformity, use of limb perfect.		Im.
b	20 y.	3 y.	M	R	Simple.	Pasteboard splints.	U.	–	None.	Reece, Abingdon, Ill.		P.
c	30 y.	2 y.	M	R	Simple.	Pasteboard splints.	U.	–	None.	Use of limb perfect. Reece.		P.
d	22 y.	3 y.	F	L	Simple.	4 board splints.	U.	6 w.	1 in.	Large callus remains. Aldrich.		Im.
e	67 y.	2 y.	F	R	Simple.	Scultetus' bandage.	U.	3 m.	⅔ in.	Large callus, limb not useful. Aldrich, Gilson, Ill.		Im.

TABLE II.—FRACTURES OF THE HUMERUS (*Continued*).

Shaft. (*Middle Third.*)

No.	Age when it occurred.	Time since it occurred.	Sex.	Right or left side.	Character of the Fracture.	Treatment.	Result. United or not.	When united.	Amount of Shortening.	Remarks.	Perfect or Imperfect.
14	6 y.	1 y.	M	R	Simple.	Lateral splints.	U.	–	–	— —	P.
15	8 y.	25 y.	M	L	Simple.	Lateral splints, &c.	U.	–	–	— —	P.
16	Birth.	10 m.	F	L	Simple trans.	Lateral splints.	U.	14 d	–	Congenital.	P.
17	45 y.	1 y.	M	R	Simple trans.	—	U.	4 m.	–	Syphilitic.	P.
18	63 y.	2 y.	M	R	Simple.	—	U.	–	1 in.	— —	Im.
19	33 y.	30 y.	M	L	Simple.	Lateral splints.	U.	–	½ in.	— —	Im.
20	13 y.	5 w.	M	–	Simp. & oblique.	—	U.	–	½ in.	— —	Im.
21	35 y.	5 m.	M	R	Simple.	—	N. U.	–	–	Anchylosis.	Im.
22	35 y.	6 m.	M	L	Simple.	First, right-angle splint; subsequently straight position.	U.	–	–	Union delayed.	P.
23	30 y.	2 m.	M	R	Comminuted.	Long gutta per. and sling, &c.	U.	–	–	— —	P.
a	12 y.	6 y.	M	R	Comp'd comminuted.	Starch.	U.	7 w.	¾ in.	Heavy provisional callus. Reeder.	Im.
b	23 y.	8 m.	M	L	Simple.	Hamilton's splint.	U.	6 w.	⅛ in.	Ensheathing callus still present.	Im.
c	24 y.	14 y.	M	R	Comminuted.	Pasteboard splints.	U.	–	–	Gunsh ot. Necrosis.	Im.
d	26 y.	4 m.	M	L	Simple.	Straight splints.	U.	–	–	Co. Hospital, Chicago. Fenn.	Im.
e	12 y.	1 y.	M	R	Simple.	Pasteboard splints.	U.	–	None.	Reece, Abingdon, Ill.	P.
f	40 y.	–	M	L	Simple.	—	N. U.	–	–	Gott. *Am Jour. Med. Sci.*, Jan., 1870.	–
g	75 y.	–	M	–	Simple.	Bandage only with position.	U.	–	–	Ashurst. *Am. Jour. Med. Sci.*, July, 1866.	–
h	0 y.	15 m.	M	L	Simple.	Resection.	N. U.	–	–	Gott. *Am. Jour. Med. Sci.*, Jan., 1870.	Im.
i	18 y.	–	M	R	Simple.	—	–	–	–	Refractured twice. Humerus removed by absorption. *Boston Med. and Surg. Jour.*, Oct. 10, 1872.	Im.
j	40 y.	3 m.	M	–	Simple.	—	N. U	–	–	Resection and union. *Med. Times and Gaz.*, June 22, 1872.	Im.

TABLE II.—FRACTURES OF THE HUMERUS (*Continued*).

Above Base of Condyles. (Lower Third.)

No.	Age when it occurred.	Time since it occurred.	Sex.	Right or left side.	Character of the Fracture.	Treatment.	Result.				
							United or not.	When united.	Amount of Shortening.	Remarks.	Perfect or Imperfect.
24	55 y.	2 y.	M	L	Simple.	Lateral splints.	U.	–	–	Fragilitas ossium.	P.
25	3 y.	3 m.	F	R	Simple.	—	U.	–	–	— —	P.
26	4 y.	20 y.	M	–	Simple.	—	U.	–	–	— —	P.
27	18 y.	–	M	–	Simple.	Starch & pasteboard splints.	U.	30 d.	¼ in.	— —	Im.
28	32 y.	15 y.	M	R	Simple.	—	U.	–	–	Slight anchylosis.	Im.
29	40 y.	4 y.	M	–	Simp. & oblique.	Lateral splints.	U.	40 d.	–	Elbow stiff a long time.	Im.
30	7 y.	15 y.	M	L	Simple.	Lateral splints.	U.	–	½ in.	Arm bent, weak, somewhat wasted.	Im.
31	30 y.	1 m.	M	L	Simp. & oblique.	Lateral splints.	U.	30 d.	1¼ in.	— —	Im.
32	30 y.	2 m.	M	R	Comminuted.	Long gutta per. splint, sling, &c.	U.	–	–	— —	P.
33	30 y.	6 m.	M	L	Comp'd.	Angular splint.	N. U.	–	½ in.	Unsuccessful attempt to unite bone by operation.	Im.
34	25 y.	2 y.	M	R	Comp'd, comminuted & complic.	—	U.	–	1 in.	Unreduced dislocation of shoulder.	Im.
a	25 y.	5 y.	M	L	Comp'd.	—	U.	–	–	Case *j* fract., R. & U., mid., ½ in	Im.
b	8 y.	–	M	–	Comp'd.	Amputation.	–	–	–	Packard. *Am Jour. Med. Sci.*, Jan., 1871.	–
c	11 y.	3 y.	M	R	Comp'd.	Pasteboard.	U.	2 m.	–	Motion in joint improved, large callus remains. Aldrich, Gilson, Ill.	Im.

Base of the Condyles.

35	6 y.	3 y.	M	R	Simple oblique.	Felt and paste.	U.	11 d.	–	— —	P.
36	4 y.	3 m.	M	R	Simple oblique.	—	U.	28 d.	–	Partial anchylosis.	Im.
37	6 y.	–	M	R	Simple.	—	U.	–	–	— —	–
38	60 y.	7 m.	M	R	Simple.	—	U.	–	½ in.	Upper frag. behind lower. Ancholysis.	Im.
39	9 y.	2 m.	M	–	Simple.	—	U.	–	–	— —	Im.
40	8 y.	1 y.	M	L	Simple oblique.	Right-angled splint.	U.	–	1 in.	Great deformity, paralysis of arm, prosecution failed.	Im.
41	4 y.	23 y.	M	L	Simple.	—	U.	–	–	Deformity, pain, numbness, &c., after 23 years.	Im.
42	2 y.	3 y.	F	L	Comp'd com'ted.	Splints, &c.	U.	6 m.	½ in.	Anchylosis, &c.	Im.
43	35 y.	3 y.	M	–	Comp'd com'ted.	—	U.	–	¾ in.	Partial anchylosis.	Im.
44	7 y.	17 y.	M	–	Comp'd com'ted.	—	U.	–	–	— —	P.
a	12 y.	2 y.	M	R	Simple.	Anterior splint, forced flexion.	U.	–	–	Trace of fract., use good. Reece.	Im.
b	8 y.	–	M	–	Comp'd.	Amputation.	–	–	–	Packard. *Am. Jour. Med. Sci.*, Jan., 1871.	Im.

TABLE II.—FRACTURES OF THE HUMERUS (*Continued*).

Internal Condyle.

No.	Age when it occurred.	Time since it occurred.	Sex.	Right or left side.	Character of the fracture.	Treatment.	Result. United or not.	Result. When united.	Result. Amount of Shortening.	Remarks.	Perfect or Imperfect.
45	6 y.	7 y.	M	–	Simple apoph.	Paste bandage 8th day.	U.	–	–	— —	P.
46	12 y.	38 y.	M	–	Simple.	—	U.	–	–	Anchylosis for six months.	P.
47	11 y.	–	M	L	Simple apoph.	Right-angled splint.	U.	–	–	— —	P.
48	6 y.	3 m.	M	–	S. into joint.	—	U.	–	–	Anchylosis.	Im.
49	9 y.	16 y.	M	R	Simple.	—	U.	–	–	Elbow stiff one year, frag. displaced forward, use of arm now perfect.	Im.
50	14 y.	–	M	R	Simple.	—	–	–	–	— —	
51	15 y.	3 m.	M	R	Simple apoph.	No splints.	U.	–	–	Frag. downw'd $1\frac{1}{4}$ in., partial anchylosis, prosecution, &c.	Im.
52	11 y.	1 y.	M	L	S. into joint.	—	U.	–	–	Frag. upw'd $\frac{3}{4}$ in., anchylosis.	Im.
53	9 y.	6 y.	M	L	Simple apoph.	—	U.	–	–	Frag. downw'd $\frac{1}{2}$ in., anchylosis, &c.	Im.
54	8 y.	–	M	R	S. into joint.	Ang. splint, starch bandage, &c.	U.	–	–	Anchylosis.	Im.
55	18 y.	5 y.	M	R	Into joint compl'd. with dislocation.	—	U.	–	–	Frag. downw'd and forw'd, $\frac{1}{2}$ in., deformity.	Im.
a	12 y.	60 y.	F	L	Simple apoph.	Fore-arm flexed to right-angle sling, &c.	U.	–	–	Same patient, temporary anchylosis.	Im.
b	13 y.	59 y.	F	R	Simple apoph.	—	U.	–	–	Condyles slightly inwards and upw'ds. Self.	Im.
c	16 y.	15 y.	F	L	Simple.	Anterior splint.	U.	–	–	Anchylosis. Reece.	Im.
d	14 y.	5 y.	M	L	Simple.	Anterior splint.	U.	–	–	Forced flexion, with splint. Reece.	P.
e	7 y.	5 y.	F	R	Simple.	Anterior splint.	U.	–	–	Forced flexion, with splint. Reece.	P.

External Condyle.

56	4 y.	1 y.	M	L	S. into joint.	—	U.	–	–	Condyle projects to radial side; forearm deflected to ulnar side; very little anchylosis.	Im.
57	5 y.	4 y.	M	L	S. into joint.	Gutta percha, &c.	U.	–	–	Condyle projects to radial side; forearm deflected to radial side; anchylosis.	Im.
58	88 y.	2 m.	F	–	Simple.	—	U.	–	–	Condyle displaced six lines; anchylosis.	Im.

TABLE II.—FRACTURES OF THE HUMERUS (*Continued*).

External Condyle (Continued).

No.	Age when it occurred.	Time since it occurred.	Sex.	Right or left side.	Character of the fracture.	Treatment.	Result.				
							United or not.	When united.	Amount of Shortening.	Remarks.	Perfect or Imperfect.
59	7 y.	4 y.	M	L	Simple.	—	U.	–	–	Condyle projects forwards; fore-arm deflected outwards; very slight anchylosis.	Im.
60	8 y.	2 m.	M	L	Simple.	Angular splint.	U.	–	–	Condyle projects to radial side, and a little backwards; anchylosis.	Im.
61	5 y.	20 y.	M	–	Simple.	—	U.	–	–	Condyle projects to radial side; partial anchylosis, &c.	Im.
62	5 y.	8 m.	M	–	Com'ted.	With arm nearly straight.	N. U.	–	–	One fragment not united; use of arm perfect.	Im.
63	11 y.	1 y.		L	Comp'd. dislocat. of radius backwards.	—	U.	–	–	Motions of arm perfect; but radius remains unreduced.	Im.
a	9 y.	31 y.	M	L	Complicated.	No dressing.	U.	–	–	Perfect anchylosis, straight.	Im.
b	8 y.	4 y.	M	R	Simple.	Pasteboard.	U.	–	–	Forward displacement.	Im.
c	29 y.	1 m.	F	–	Complicated.	Anterior, obtuse-angled splint.	U.	–	–	Partial anchylosis, *Medical Times*. April 1, 1871.	Im.

Between the Condyles.

64	3 y.	18 y	M	L	Simple.	—	U.	–	–	Arm shortened ¾ of an inch; internal condyle projects; partial anchylosis.	Im.
65	10 y.	7 y	M	L	Simple.	Angular splint.	U.	–	–	Condyles spread, and internal condyle carried backwards and inwards; fore-arm deflected inwards.	Im.
66	44 y.	6 y.	F	R	Com'ted.	Angular & gutta percha splints, &c.	U.	–	–	Slight anchylosis, &c.	Im.
67	35 y.	12 y.	M	L	Comp. commin.	—	U.	–	–	Partial anchylosis, &c.	Im.

TABLE III. — RADIUS.

Fracture of Neck and Head.

Prof. Hamilton describes five cabinet specimens. Two of the neck and three commencing at radial side of the bones and terminating in the joint.

1. Belonged to the late Dr. Robert Watts, of New York. "Same specimen to which Dr. Parker has referred in a note to S. Cooper's Surgery (4th Am. ed.) vol. ii. p. 334." Fracture transverse ⅓ of an inch above bicipital tuberosity. Dr. Hamilton's conclusion is "that this is not a fracture, the result of any external or sudden violence, occurring in a bone previously sound; but that it was a case of ulcerative disease of the elbow-joint, accompanied with inflammation and consequent hypertrophy of the bones, and also with caries, and resulting in a fracture or disruption of the bone through the neck."

2. Specimen in Collection of Dr. T. D. Mütter, of Philadelphia. Fracture "seems to have passed through the neck of left radius, just at upper extremity of the bicipital protuberance. Union, with deformity, has resulted. Articulating facet on head of radius is tilted backwards, so as no longer to be in contact with the humerus. Anterior edge of head of radius rests permanently against the articulating surface of the humerus." New articulating surfaces have formed where head of radius and edge of head are in contact with humerus and ulna.

Fracture of Head extending into the Joint.

1. "Adult. Oblique fracture extending into the joint. Complicated with fracture of styloid process of the ulna." H. H. Smith, M. D., Philadelphia.

2. Adult. United by bone. H. J. Bigelow, M. D., Boston.

3. Adult. Broken almost perpendicularly into the joint. Not united. Charles Gibson, M. D., Richmond, Va.

TABLE IV.—FRACTURES OF THE RADIUS.

Upper Third. (Neck.)

No.	Age when it occurred.	Time since it occurred.	Sex.	Right or left side.	Character of the fracture.	Treatment.	Result.				
							United or not.	When united.	Amount of Shortening.	Remarks.	Perfect or Imperfect.
1	11 y.	1 y.	F	R	Simple.	Fore-arm bent at right angles until 28th day; then straightened out.	U.	–	–	Slight anchylosis and forced pronation of hand.	Im.
2	8 y.	10 w.	M	L	Compl'd with fract. of condyl.	Did not employ surgeon until after 5 weeks.	U.	–	–	Anchylosis; hand pronated.	Im.
3	25 y.	6 m.	M	–	Complicated with dislocation of ulna.	—	U.	–	–	Anchylosis, and loss of both pronation and supination.	Im.

Shaft. (Middle Third.)

4	21 y.	50 y.	M	–	Simple.	—	U.	–	–	Perfect in every respect except that pronation and supination were a little restricted.	P.
5	38 y.	6 m.	M	–	Simple.	Palmar & dorsal splints.	U.	–	–	Slight forward bend of fragments.	Im.
a	56 y.	18 m.	M	R	Simple.	Two wood splints.	U.	6 w.	None.	No deformity. Hamilton, Galesburg.	P.
b	10 y.	8 y.	M	R	Simple.	Two wood splints.	U.	4 w.	None.	Arm as good as before. Wm. Hamilton.	P
c	38 y.	2 y.	M	R	Simple.	Two wood splints.	U.	5 w.	None.	No deformity. Wm. Hamilton.	P.
d	9 y.	5 y.	M	R	Simple.	Two wood splints.	U.	4 w.	None.	No deformity. Wm. Hamilton.	P

Shaft. (Lower Third, above Point of Colles' Fracture.)

6	16 y.	6 y.	M	–	Simple.	—	U.	–	–	—	P.
7	12 y.	10 y.	M	L	Simple.	—	U.	–	–	Frag. bent slightly towards ulna.	P.
8	39 y.	8 y.	M	–	Simple.	—	U.	–	–	—	P.
9	15 y.	3 m.	M	–	Simple.	—	U.	–	–	—	P.
10	30 y.	4 w.	M	R	Simple.	—	U.	–	–	—	Im.
a	8 y.	3 y.	M	R	Simple.	Pistol splint.	U.	4 w.	None.	Partial loss of rotary motion. Hamilton, Galesburg, Ill.	Im.
b	20 y.	2 y.	M	R	Simple.	Pistol splint.	U.	4 w.	None.	No deformity. Hamilton, Galesb'g, Ill.	P.
c	13 y.	6 y.	M	L	Simple.	Pistol splint.	U.	4 w.	None.	Incomplete fracture. Arm straightened, making fracture complete.	P.
d	10 y.	50 y.	M	R	Simple.	Two splints.	U.	1 m.	–	Surgeon unknown.	P.
e	9 y.	4 m.	M	L	Simple.	Pistol splint.	U.	1 m.	–	Green stick fracture. Self.	P.
f	15 y.	1 y.	M	L	Simple.	Hamilton's splints.	U.	1 m.	–	Fell from top of freight car. Self.	P.
g	15 y.	3 y.	M	–	Simple.	Pistol splint.	U.	–	–	—	P.

TABLE IV.—FRACTURES OF THE RADIUS (*Continued*).

Shaft. (*Lower Third, above Point of Colles' Fracture.*) (*Continued.*)

No.	Age when it occurred.	Time since it occurred.	Sex.	Right or left side.	Character of the fracture.	Treatment.	Result. United or not.	Result. When united.	Result. Amount of Shortening.	Remarks.	Result. Perfect or Imperfect.
h	40 y.	10 y.	F	L	Simple.	Pasteboard a day or two.	U.	–	–	Fracture doubtful.	P.
i	10 y.	1 y.	M	R	Simple.	Pistol splint.	U.	–	–	Green stick. Fract. complete.	P.
j	16 y.	4 y.	M	R	Simple.	Two straight splints.	U.	–	–	Very slight radial inclination.	P.
k	13 y.	50 y.	M	L	Simple.	Two straight splints.	U.	–	–	Great deformity. Radial inclination. Dislocat. head of ulna.	Im.
l	6 y.	5 y.	M	L	Simple.	Pistol splint.	U.	–	–	—	P.
m	58 y.	1 y.	F	R	Simple.	Straight splints.	U.	1 m.	–	Radial inclination of hand. Ulnar inclination at seat of fracture.	Im.

Shaft. (*Lower Third, near Union of Epiphysis with Diaphysis. Colles' Fracture.*)

11	22 y.	3 m.	M	L	Simple, lower frag. dis. forward.	Straight splints.	U.	–	–	Arm straight but wrist stiff.	P.
12	14 y.	24 y.	M	–	Simple.	—	U.	–	–	— —	P.
13	15 y.	25 y.	M	L	Simple.	—	U.	–	–	— —	P.
14	43 y.	3 m.	F	–	Simple.	Straight splints.	U.	–	–	— —	P.
15	38 y.	6 w.	F	L	Simple.	Smith's curved splint.	U.	–	–	— —	P.
16	40 y.	5 w.	M	R	Simple.	Curved splint.	U.	36 d.	–	— —	P.
17	35 y.	6 w.	M	L	Simple.	Straight splint.	U.	19 d.	–	Some swelling and stiffness remaining. No ensheathing callus at any period.	P.
18	37 y.	18 d.	M	–	Simple.	Straight splint.	U.	18 d.	–	— —	P.
19	60 y.	–	F	R	Simple.	Curved splint one week; after this straight splint.	U.	25 d.	–	— —	P.
20	17 y.	6 m.	M	–	Simple.	—	U.	–	–	— —	Im.
21	25 y.	5 y.	F	L	Simple.	Four narrow splints.	U.	–	–	Radial inclination; joint stiff, &c.	Im.
22	25 y.	1 y.	F	R	Simple.	Straight splint, but hand pressed over to ulna side.	U.	–	–	Radial inclination; otherwise perfect.	Im.
23	45 y.	5 m.	M	L	Simple.	Straight splints.	U.	–	–	Radial inclination; some stiffness.	Im.
24	36 y.	1 y.	M	L	Simple.	Curve splint one week; after this no splint.	U.	5 w.	–	Erysipelas; stiffness of wrist and fingers; bone straight.	Im.
25	60 y.	6 w.	F	L	Simple.	Curved splints.	U.	–	–	Hand falls to radial side and back.	Im.
26	56 y.	2 y.	F	L	Simple.	Pasteboard splints.	U.	–	–	Hand to radial side; fingers stiff.	Im.
27	10 y.	12 y.	M	L	Simple.	—	U.	–	1 in.	Ulna displaced downwards.	Im.

TABLE IV.—FRACTURES OF THE RADIUS (*Continued*).

Shaft. (*Lower Third, near Union of Epiphysis with Diaphysis.*) (*Continued.*)

No.	Age when it occurred.	Time since it occurred.	Sex.	Right or left side.	Character of the fracture.	Treatment.	Result.				Perfect or Imperfect.
							United or not.	When united.	Amount of Shortening.	Remarks.	
28	67 y.	3 m.	M	L	Simple.	Curved splints.	U.	–	–	— —	Im.
29	51 y.	1 y.	F	R	Simple.	—	U.	–	–	Lower frag. backwards: joint stiff.	Im.
30	26 y.	4 y.	F	L	Simple.	—	U.	–	–	Hand falls to radial side.	Im.
31	48 y.	5 w.	F	L	Simple.	Straight splints.	U.	32 d.	–	Hand inclines to radial side.	Im.
32	43 y.	3 m.	F	L	Simple.	Curved and straight splint.	U.	26 d.	–	Ulna projects; slight stiffness.	Im.
33	52 y.	3 y.	F	–	Simple.	—	U.	–	–	Hand to radial side and backwarks; fingers contracted, &c.	Im.
34	8 y.	1 y.	M	–	Simple.	—	U.	–	–	Hand inclines to radial side.	Im.
35	29 y.	–	F	–	Simple.	—	U.	–	–	Hand inclines to radial side.	Im.
36	56 y.	5 y.	F	R	Simple.	Straight splints, ten weeks.	U.	–	–	Hand to radial side; wrist and fingers stiff; arm very weak, &c.	Im.
a	50 y.	2 y.	F	L	Simple.	Pistol splints.	U.	–	–	Deformity; not perfect use.	Im.
b	52 y.	1 y.	F	R	Simple.	Pasteboard splints.	U.	–	–	Deformity, imperfect use of hand.	Im.
c	18 y.	9 m.	M	L	Simple.	Moore's dressing.	U.	–	–	Good use of hand.[1]	P.
d	18 y.	9 m.	F	R	Simple.	No dressing.	U.	–	–	Supposed to be dislocation. Cases *a*, *b*, *c*, and *d*. Reece, Abingdon, Ill.	Im.
e	56 y.	7 m.	M	R	Simple.	Pistol splint.	U.	–	–	Imperfect use of arm. Purdum.	Im.
f	60 y.	6 y.	F	R	Simple.	No dressing.	U.	–	–	Very imperfect. Purdum.	Im.
g	48 y.	5 y.	F	R	Simple.	Pistol splint.	U.	5 w.	None.	Wm. Hamilton, Galesburg.	P.
h	29 y.	4 y.	F	R	Simple.	Pistol splint.	U.	6 w.	None.	Considerable deform. and loss of funct.	Im.
i	6 y.	3 y.	M	R	Simple.	Pistol splint.	U.	5 w.	None.	*h*, and *i*. Wm. Hamilton.	P.
j	34 y.	4 y.	M	R	Simple.	Pistol splint.	U.	5 w.	None.	Slight ant. projection. Hamilton.	Im.
k	57 y.	3 y.	F	R	Simple.	No dressing.	–	–	–	Supposed dislocation. Hand to radial side.	Im.
l	26 y.	7 y.	M	L	Simple.	Straight splints.	U.	–	–	Great deformity.	Im.
m	60 y.	4 m.	F	R	Simple.	Straight splints.	U.	1 m.	–	Considerable deformity.	Im.
n	53 y.	2 y.	F	L	Simple.	Pistol splint.	U.	20 d.	–	Head of ulna prominent.	Im.
o	31 y.	15 y.	M	L	Simple.	Pasteboard splints.	U.	1 m.	–	Hand to radial side, ulna projects.	Im.
p	58 y.	4 y.	F	R	Simple.	Straight splints.	U.	6 w.	–	Hand and wrist backward, ulna projects.	Im.
q	61 y.	5 y.	F	R	Simple.	Two straight splints.	U.	1 m.	–	Hand backwards, ulna projects.	Im.
r	63 y.	9 y.	M	R	Simple.	Pistol splint.	U.	1 m	–	Head of ulna prominent.	Im.

TABLE IV.—FRACTURES OF THE RADIUS (*Continued*).
Shaft. (*Lower Third, near Union of Epiphysis with Diaphysis.*)
(*Continued.*)

No.	Age when it occurred.	Time since it occurred.	Sex.	Right or left side.	Character of the fracture.	Treatment.	Result.				
							United or not.	When united.	Amount of Shortening.	Remarks.	Perfect or Imperfect.
s	30 y.	46 d.	M	R	Simple.	Bond's splint.	U.	1 m.	–	Barton's fracture.	P.
t	30 y.	46 d.	M	L	Simple.	Bond's splint.	U.	1 m.	–	Barton's fracture. Fract. patella.	Im.
37	13 y.	5 m.	M	R	Simple.	Straight splint.	U.	–	–	Barton's fracture. [?]	P.
38	38 y.	2 m.	M	L	Simple.	Straight splint after third day.	U.	–	–	Ulna projects; joint stiff; fragments in perfect line.	P.
u	13 y.	3 m.	M	L	Simple.	Straight splints.	U.	–	–	Fisher. *Chicago Med. Jour.* 1867, p. 72.	P.
v	–	2 y.	F	R	Simple.	Pasteboard splints.	U.	–	–	Hand to radial side; head of ulna projects.	Im.
w	72 y.	1 y.	F	R	Simple.	Two straight splints.	U.	–	–	Same as above, with marked swelling on back of hand.	Im.
x	10 y.	–	M	R	Simple.	Two pistol splints.	U.	–	–	Smith. *Med. Record*, vol. vii., p. 58, for this and next case.	P.
y	10 y.		M	L	Simple.	Two pistol splints.	U.	–	–	— —	P.

It will be observed in fractures in the lower third of the radius, especially within an inch or an inch and a half of the joint, how frequently the head of the ulna projects, seemingly as if it were dislocated. Professor Moore, of Rochester, N. Y., claims that it is dislocated in most of these fractures, and that it must be replaced before the fracture is adjusted.[1] The slight radial inclination that generally follows this fracture is sufficient to give considerable prominence to the head of the ulna, and especially after union has taken place, and the swelling has subsided, this prominence is marked, often to such an extent as to lead patients to suppose they have suffered a dislocation of the wrist rather than a fracture of the radius. If the fracture of the radius is very oblique there will be more or less shortening, in many cases, in which condition, the head of the ulna will be carried downward and from the radial inclination of the hand, somewhat outward.

[1] He says: "It is altogether probable that fracture of the radius may occur with which there is no complication of ulnar luxation. In these cases there would be but little deformity, and crepitus would undoubtedly be a matter of easy determination." Med. Record, vol. v. p. 50.

ULNA.

Fractures of Olecranon and Coronoid Processes.

The frequency of fractures of the olecranon and the possibility of fractures of the coronoid process of the ulna renders a short introduction to the Table of Fractures of Ulna appropriate.

In respect to fractures of the olecranon, they are quite apt to be complicated with other injuries, inasmuch as the force required to produce the fracture is severe. Case *a.* of Table, history of which given in Chapter on Diagnosis, was a case of this kind.

Case *b.* No dressing. Fore-arm flexed to right angle and supported in a sling. The fragments are now, after three years, united by ligament about $\frac{1}{3}$ of an inch apart. Fore-arm can be extended about 45°.

This case is a fine example of the result of sprains and fractures about the wrist-joint, in persons of a rheumatic diathesis. Five years previous to fracturing olecranon, he attempted to move a heavy stump with the hand of same arm, spraining the ligamentous tissues in and about the wrist. The hand became instantly powerless from pain, and now, eight years subsequently, the fingers are distorted by contraction of the tendons supplying them, the hand being entirely useless for any function whatever.

Case *c.* Fell a distance of eight feet striking upon elbow, fracturing olecranon process through its base. Dr. King, of Bradford County, Penn., dressed the arm upon a Rose splint at an angle of about 60°.

Twenty-four years after I find the process has united by a very short ligament. The head of the radius is evidently dislocated forwards, so that flexion of the fore-arm is abruptly arrested at a right angle. Hand prone, but can be rotated by voluntary effort so that thumb points upward. Extension cannot be carried to more than 60°.

Fracture of the coronoid process is of extremely rare occurrence. It will scarcely happen without other injuries. That consecutive dislocation is of frequent occurrence is very true, but whether to ascribe it to this accident I am uncertain. Of the ten or twelve reported cases, most or all of them are unsatisfactory, and the Pathological Museums of the world throw but little more light upon the subject. Most reported cases were those of children, but it must be remembered that the coronoid process is an apophysis and not an epiphysis. Prof. J. C. Hughes, of Iowa, is the only surgeon whom I have found who admits fracture of the process to be of frequent occurrence. He says (*Vide* Trans. Am. Med. Soc. 1873): "A posterior dislocation at the elbow is very rare when unconnected with fracture of the coronoid process."

When we consider that an injury about the elbow may be a fracture of: (1.) the external condyle, (2.) internal condyle, (3.) olecranon, (4.) coronoid process, (5.) head of radius (?), or two or more of these fractures, or a dislocation of the radius, forwards or backwards, or outwards, or a dislocation of the ulna backwards, or of the radius and ulna, both, backwards, or outwards, or inwards, or forwards, or a combination of fracture and dislocation, and these associated with *immediate* and great swelling, it will be seen how great the diagnosis, treatment, and prognosis must necessarily be.

TABLE V.—FRACTURES OF THE ULNA.

Olecranon Process. (*Upper Third.*)

No.	Age when it occurred.	Time since it occurred.	Sex.	Right or left side.	Character of the fracture.	Treatment.	Result.				
							United or not.	United by.	Amount of lengthening.	Remarks.	Perfect or Imperfect
1	52 y.	1 y.	M	R	Simple.	—	U.	Lig.	¼ in.	—	P.
2	18 y.	9 y.	M	R	Simple.	Straight splint.	U.	Lig.	½ "	Could not straighten the arm quite as well as before.	P.
3	14 y.	69 y.	M	–	Simple.	—	U.	Bone.	–	Could not straighten arm completely nor supine it freely.	Im.
4	14 y.	1 m.	M	–	Simple.	Straight gutta-percha.	U.	Bone.	–	United in 22 days.	P.
5	15 y.	6 m.	M	–	Complicated with dislocated radius.	—	U.	Lig.	–	Forearm remains at an angle of 45° with the arm.	Im.
a	25 y.	2 y.	M	L	Complicated.	Straight splint.	U.	Bone.	–	Anchylosis in nearly straight position.	Im.
b	59 y.	3 y.	M	R	Simple.	Sling, no splints.	U.	Lig.	½ in.	Extends arm to 45°	Im.
c	43 y.	24 y.	M	R	Complicated.	Rose's splint.	U.	Lig.		Great deformity; head of radius dislocated; flexion abruptly arrested at right angles; rotation of arm lost; cannot extend arm more than ⅔.	Im.

Shaft. (*Upper Third below Coronoid Process.*)

6	18 y.	1 y.	M	–	Simple.	—	U.	–	–	— —	P.
7	46 y.	9 w.	F	–	Simple.	—	U.	–	–	Slight forward bend at seat of fracture; lower end of ulna projecting slightly to ulnar side.	P.
8	32 y.	3 w.	F	L	Simple.	2 wide splints.	U.	–	–	Bend at seat of fracture; lower end of ulna projecting to ulnar side; arm as useful as before.	P.
9	7 y.		F	–	Comp'd.	2 straight splints.	U.	–	–	— —	P.
10	4 y.		F	–	Simple, compl'd with dislocation.	Ang. splints, &c.	U.	–	–	The fragments continued to press forwards; functions of arm perfect.	P.
11	17 y.		M	L	Comp'd, complicated with dislocation.	Rest, and cooling lotions.	U.	–	¾ in.[1]	Head of radius remains dis. forwards; fragments of ulna bent forwards and outwards towards the radius; flexion and extension imperfect, &c. Arm quite useful.	Im.

[1] Shortened.

TABLE V.—FRACTURES OF THE ULNA (*Continued*).

Shaft. (*Middle Third.*)

No.	Age when it occurred.	Time since it occurred.	Sex.	Right or left side.	Character of the fracture.	Treatment.	Result.				
							United or not.	When united.	Amount of shortening.	Remarks.	Perfect or Imperfect.
12	39 y.	8 m.	[illegible]	R	Simple.	Straight splints.	U.	4 w.	–	Very slight bend backwards.	P.
13	30 y.	10 y.	[illegible]	–	Simple.	—	U.	–	–	Hand inclines to pronation; slight bend at seat of fracture.	P.
14	3 y.	6 w.	M	–	Compl'd with disloc. of radius.	Splints.	U.	–	–	— —	P.
15	9 y.	6 w.	M	–	Compl'd with disloc. of radius.	Angular splints, &c.	U.	–	–	Ulna slightly bent at seat of fracture.	P.
16	9 y.	5 y.	M	–	Compl'd with disloc. of radius.	Splints.	U.	–	–	The fracture was also compound.	P.
a	11 y.	6 y.	M	R	Simple.	Pasteboard splints.	U.	–	–	Purdum, Hermon, Ill.	–
b	22 y.	6 m.	M	R	Simple.	2 wood splints.	U.	5 w.	None.	Hamilton, Galesburg, Ill.	P.
c	25 y.	10 m.	M	L	Simple.	No dressing.	U.	–	½ in.	Ensheathing callus marked.	Im.
d	19 y.	1 y.	M	R	Simple.	2 board splints.	U.	4 w.	–	Lower end bends forward and inward. Large callus. Aldrich, Gilson, Ill.	Im.

Shaft. (*Lower Third.*)

17	25 y.	2 m.	F	–	Simple.	2 broad splints.	U.	–	–	Before dressing, hand was prone.	P.
18	26 y.	3 m.	F	R	Simple.	2 broad splints.	U.	–	–	Before dressing, hand was prone.	P.
19	39 y.	1 y.	M	L	Simple.	—	U.	–	–	Some displacement of fragments.	P.
20	21 y.	2 y.	M	R	Simple.	Gibson's splints.	–	–	–	Cannot supine hand perfectly; lower end of ulna projects to ulnar side, &c.	Im.
21	25 y.	2 y.	M	L	Comminuted, compl'd with disloc. of radius forwards	—	U.	–	1 in.	Radius remains dislocated; ulna much bent forwards at seat of fracture.	Im.
22	26 y.	3 m.	M	–	Compl'd with disloc. of head of radius forwards	—	U.	–	–	Radius remains dislocated; ulna bent at seat of fracture; all the motions of arm nearly complete.	Im.
a	56 y.	3 y.	M	R	Simple.	Roller bandage.	U.	3 w.	–	Head of ulna quite prominent; function unimpaired.	Im.

TABLE VI. — FRACTURES OF THE RADIUS AND ULNA.

Upper Third.

No.	Age when it occurred.	Time since it occurred.	Sex.	Right or left side.	Character of the fracture.	Treatment.	Result.					Perfect or Imperfect.
							United or not.	When united.	Amount of shortening.	Remarks.		
1	16 y.	–	M	–	Simple.	—	U.	–	–	—	—	P.

Middle Third.

2	25 y.	25 y.	M	–	Simple.	—	U.	–	–	—	—	P.
3	11 y.	5 w.	M	–	Simple.	—	U.	5 w.	–	Ensheathing callus.		P.
4	11 y.	11 y.	M	–	Simple.	—	U.	–	–	—	—	P.
5	10 y.	30 y.	M	R	Simple.	—	U.	–	–	—	—	P.
6	9 y.	10 y.	F	–	Simple.	—	U.	–	–	—	—	P.
7	2 y.	2 m.	M	R	Simple.	—	U.	–	–	—	—	P.
8	16 y.	3 y.	M	R	Simple.	—	U.	–	–	—	—	P.
9	26 y.	7 y.	M	L	Simple.	2 broad splints, felt, &c.	U. and D. U.	2 and 4 m.	–	Ulna united in 8 weeks and the radius in 16.		P.
10	–	40 y.	M	–	Simple.	—	U.	–	–	—	—	Im.
11	30 y.	4 m.	M	R	Simple.	2 broad splints, paste, &c.	U. and D. U.	7 w.	–	Ulna united in 7 weeks, but radius has not in 4 m.		Im.
12	–	4 m.	M	L	Simple.	Carved splints.	U. and D. U.	–	¾ in.	Lower frag. bent to ulnar side 4 m. after fracture; ulna not united.		Im.
13	9 y.	2 m.	M	R	Simple.	2 broad splints.	N. U.	–	–	Arm sloughed off.		Im.
14	22 y.	6 m.	F	L	Comp'd.	—	D. U.	4 m.	–	Union delayed 4 m. Arm still swollen, &c.		Im.
15	35 y.	2 m.	M	–	Comminuted	2 broad splints, &c.	U.	–	½ in.	Slight deformity.		Im.
a	14 y.	–	M	R	Simple.	2 straight splints.	U.	–	–	Use of arm good. Purdum.		P.
b	13 y.	5 y.	F	R	Simple.	Straight splints.	U.	–	–	Use of arm good. Purdum.		P.
c	48 y.	6 y.	M	R	Simple.	2 wood splints.	U.	6 w.	½ in.	Rotation partly lost. Wm. Hamilton.		Im.
d	14 y.	6 y.	F	L	Simple.	2 short, straight splints.	U.	6 w.	–	Ensheathing callus. Arm bent to radial side.		Im.
e	13 y.	2 y.	M	R	Simple.	Pasteb'd splints.	U.	–	–	Reece, Abingdon, Ill.		P.
f	7 y.	1 y.	M	R	Simple.	Pasteb'd splints.	U.	–	–	"	"	P.
g	5 y.	2 y.	M	R	Simple.	Pasteb'd splints.	U.	–	–	"	"	P.
h	7 y.	2 m.	M	L	Simple.	Pasteb'd splints.	U.	–	–	"	"	P.
i	10 y.	1 y.	M	L	Simple.	Pasteboard.	U.	–	–	"	"	P.
j	25 y.	5 y.	M	L	Comp'd.	—	U.	–	–	Reece. R. R. injury; broken at several points; one year before use of limb.		Im.
k	46 y.	2 y.	M	L	Simple.	2 board splints.	U.	4 w.	¼ in.	Limb useful. Aldrich, Gilson, Ill.		Im.

TABLE VI.—FRACTURES OF THE RADIUS AND ULNA (*Continued*).

Lower Third.

No.	Age when it occurred.	Time since it occurred.	Sex.	Right or left side.	Character of the fracture.	Treatment.	Result.				
							United or not.	When united.	Amount of shortening.	Remarks.	Perfect or Imperfect.
16	3 y.	7 y.	M	–	Partial.	No splints.	U.	–	–	— —	P.
17	18 m.	1 y.	F	R	Partial.	Splints, &c., 3 or 4 days.	U.	–	–	— —	P.
18	5 y.	–	M	L	Partial.	Single splint.	U.	–	–	Frags. at first salient backwards.	P.
19	6 y.	4 w.	F	R	Partial.	Single splint.	U.	–	–	Salient backwards, probably epiphyseal.	P.
20	8 y.	2 m.	M	L	Part. & complete	Single splint.	U.	21 d.	–	Salient forwards.	P.
21	2 y.	4 m.	M	–	Part. & complete	No splints.	U.	–	–	Ulna broken 1 in. from its lower end, and radius bent at junction of epiphysis with diaphysis.	P.
22	14 y.	–	M	–	Part. & complete	2 broad splints.	U.	–	–	Radius broken and ulna bent.	P.
23	11 y.	14 y.	M	R	Simple.	—	U.	–	–	— —	P.
24	8 y.	1 y.	M	R	Simple.	Paste bandage.	U.	–	–	— —	P.
25	12 y.	6 y.	M	–	Simple.	—	U.	–	–	— —	P.
26	7 y.	3 m.	M	–	Simple.	2 splints.	U.	–	–	Probably at junction of epiphysis with diaphysis, and perhaps not complete; frags. bent forwards.	P.
27	10 y.	18 y.	M	–	Simple.	Splints.	U.	–	–	Deformity remaining 4 years.	P.
28	14 y.	3 m.	M	–	Simple.	Splints after 4 weeks.	U.	–	–	Deformed as in fract. of radius.	Im.
29	10 y.	13 y.	M	–	Simple.	—	U.	–	–	— —	P.
30	30 y.	6 w.	F	–	Simple.	1 straight splint after 2d week.	U.	–	–	— —	P.
31	23 y.	6 w.	M	–	Compl'd with fracture of humerus.	Gutta-percha and wooden splints.	U.	–	–	— —	P.
32	9 y.	1 y.	M	–	Simple.	Refract. after 2 w., and splints applied.	U.	–	–	— —	P.
33	16 y.	10 y.	M	R	Simple.	2 wide splints.	U.	–	–	Ulna projects.	P.
34	12 y.	1 y.	F	R	Comp'd.	3 splints.	U.	–	–	— —	P.
35	32 y.	8 m.	M	R	Simple.	—	U.	–	–	Accidentally refract. after 4 m.	P.
36	10 y.	3 m.	M	R	Comp'd.	1 gutta-percha splint.	U.	–	–	— —	Im.
37	18 y.	14 y.	M	L	Compl'd	—	U.	–	½ in.	— —	Im.
38	36 y.	7 w.	M	–	Comp'd commin.	Gutta-percha, &c.	U.	–	–	Lower frags. inclined to ulnar side.	Im.
39	35 y.	3 y.	M	R	Comp'd.	2 broad splints.	U. and D. U.	–	–	Ulna united soon; radius not until 9th week; arm inclined to ulnar side from seat of fracture downwards.	Im.
40	38 y.	2 y.	M	L	Comp'd.	—	U. and N. U.		–	Ulna united soon, but the rad. delayed 2 years; operation, prosecution, and never came to trial.	Im.

TABLE VI.—FRACTURES OF THE RADIUS AND ULNA (*Continued*).

Lower Third. (*Continued.*)

No.	Age when it occurred.	Time since it occurred.	Sex.	Right or left side.	Character of the fracture.	Treatment.	Result.				
							United or not.	When united.	Amount of shortening.	Remarks.	Perfect or Imperfect.
a	65 y.	4 y.	F	R	Impacted.	Days' splint for 2 weeks, then starch.	U.	–	–	Partial anchylosis of wrist; patient not satisfied with result. Reeder, Lacon, Ill.	Im.
b	12 y.	2 y.	F	L	Partial.	Plaster of Paris.	U.	3 w.	–	Reeder.	P.
c	6 y.	3 y.	M	–	Simple.	Pasteb'd splints.	U.	–	–	Purdum, Hermon, Ill.	P.
d	14 y.	6 y.	M	R	Simple.	2 straight splints.	U.	1 m.	–	Ulna projects. Self.	Im.
e	68 y.	4 y.	F	L	Complicated.	No dressing.	U.	–	–	Inclination hand to radial side and backward. Head of ulna dislocated.	Im.
f	9 y.	2 m.	M	R	Simple.	Hamilton's splt.	U.	–	–	Partial. Arm straightened; rad. broke completely. Ulna fract. a little below radius, and when arm was straight'd, sprang away from radius. Slf.	P.
g	13 y.	3 m.	M	R	Complicated.	Straight splints.	U.	–	–	Fisher, *Chicago Med. Jour.*, 1867, p. 72. Partial anchylosis.	Im.

FEMUR.

Professor Hamilton, in his introduction to fractures of the femur (Report on Deformities after Fractures, vol. 10, Transactions, Am. Med. Association, p. 242), remarks: "It is possible that wrong inferences may be drawn from the Tables, by those who do not observe particularly what is implied by the terms 'perfect' and 'imperfect.' I have established for myself a standard by which to regulate the application of these terms, and which can be easily understood by a reference to the full record of the cases; but the standard is arbitrary, and probably would not be regarded as just by all surgeons. Indeed, it has frequently happened to me to examine broken limbs which have been carefully measured by other surgeons and found shortened one quarter or

one half, or even three quarters of an inch, but which they have chosen to call 'perfect.' With such a standard as these gentlemen adopt, the proportion of perfect cases in my Tables would have been very greatly increased, and perhaps art would have been less scandalized, but I know that truth would have been less faithfully vindicated."

It too frequently happens that if the patient does not limp, his surgeon looks upon the result as being "perfect," not recognizing that a slight inclination of the pelvis compensates for the shortening, and so obviates limping.

The conditions of a faithful measurement of the lower extremity are these: "The patient should repose upon his back, upon an even surface, with the lower extremities as nearly as possible in the line with the axis of the body, the two wings of the pelvis being in the same (horizontal) line. A flexible, but firm, graduated tape is to be preferred to the steel tape measure. The foot being steadied by an assistant, the surgeon should put his thumb nail against the line where it joins the ring, and push his nail into the skin just *below* the anterior superior spinous process of the ilium, pressing firmly up and back, the flat surface of the nail resting upon the skin. . . . . Below the measurement may be made from either malleolus, but the outer has the most defined extremity, and is generally to be preferred." Hamilton, Fract. and Dis. 5th ed. 418. The swelling about the ankle may render these points below rather undefined, and care must be used in selecting the precise point. Fractures implicating both thigh and leg require a new point of departure in the measurement of the leg, which is generally the angle between the superior and external lateral border of patella. Error may in some cases arise, from the malleoli of the opposite limbs being of unequal length, or from one limb being congenitally shorter than the other. Measurement is seldom resorted to in fractures of upper extremity on account of the difficulty of obtaining fixed points of departure.

TABLE VII.—FRACTURES OF THE FEMUR.

Neck. (*Upper Third.*)

No.	Age when it occurred.	Time since it occurred.	Sex.	Right or left side.	Character of the fracture.	Treatment.	Result.				
							United or not.	When united.	Amount of shortening.	Remarks.	Perfect or Imperfect.
1	52 y.	3 m.	M	–	Simple probably within capsule.	Straight splints three w., then crutches.	–	–	½ in.	— —	Im.
2	77 y.	6 m.	M	R	S. within capsule.	No dressing for two weeks, and then straight splints.	U. by Lig.	–	3 in.	Fall on trochanter; did not shorten at first; no eversion or inversion of toes; no crepitus.	Im.
3	78 y.	36 h.?	M	–	Simple.	Double inclined plane at first, then straight splints.	–	–	1 in.	Fall on trochanter; eversion of toes; no crepitus.	Im.
4	73 y.	29 d.	F	R	S. without capsule.	No splint.	–	–	½ in.	Fall on trochanter; eversion; no crepitus; unable to lie down for three months; unable to walk for one year.	Im.
5	66 y.	1 m.	F	R	S. within capsule.	Double inclined plane.	–	–	1 in.	No shortening at first; no crepitus; eversion.	Im.
6	50 y.	5 y.	F	R	Simple.	No treatment except confinement to bed.	–	–	1½ in.	Fall on trochanter; eversion; bed-ridden after five years.	Im.
7	84 y.	8 m.	F	L	S. probably without capsule.	Confinement in bed.	Bone.	–	½ in.	Fall on trochanter; eversion at first; unable to walk without crutches after eight mos.	Im.
8	65 y.	6 m.	M	L	Simple.	Gibson's straight splint.	U.	–	¾ in.	Blow on groin.	Im.
9	79 y.	1 y.	F	L	Simple.	Double inclined plane of pillows.	–	–	–	Eversion; one year in bed.	Im.
10	31 y.	36 y.	M	R	Simple.	Straight, single inclined plane, with extension.	U.	–	1¾ in.	Fall on feet; on crutches in ten weeks; slight halt.	Im.
11	40 y.	14 h.?	M	L	Simple.	Straight splint.	–	–	½ in.	Crepitus; eversion.	Im.
12	51 y.	9 y.	F	L	S. probably within capsule.	Double inclined plane.	–	–	1 in.	Fall on trochanter; eversion; no crepitus; no shortening at first.	Im.
13	67 y.	1 y.	F	R	Simple.	Flex. pos. over pillows, &c.	–	–	1 in.	Fall on trochanter; eversion; no crepitus.	Im.
14	39 y.	6 y.	M	L	S. probably without capsule.	Straight splint.	N. U.	–	2 in.	Blow on trochanter; eversion.	Im.
15	57 y.	3 y.	M	L	S. within capsule.	No splints.	N. U.	–	1½ in.	Fall on feet.	Im.
16	51 y.	7 y.	F	R	Simple.	No splints.	–	–	¾ in.	Not able to walk under six months.	Im.
17	42 y.	–	M	L	S without capsule.	Straight splint, with extension six weeks.	U.	6 w.	½ in.	Fall on trochanter; no crepitus; eversion; death on 46th day.	Im.

TABLE VII.—FRACTURES OF THE FEMUR (*Continued*).

Neck. (*Upper Third.*) (*Continued.*)

No.	Age when it occurred.	Time since it occurred.	Sex.	Right or left side.	Character of the fracture.	Treatment.	Result.				
							United or not.	When united.	Amount of Shortening.	Remarks.	Perfect or Imperfect.
18	76 y.	2 m.	F	–	Simple.	Double inclined plane.	–	–	–	Fall on hip; died in four months.	Im.
19	48 y.	5 y.	M	L	S. within capsule.	Detention in bed a few days, then walking with crutches.	U. by Lig.	6 w.	1½ in.	Not shortened at first; subsequently shortened and everted.	Im.
20	84 y.	5 m.	F	L	S. without capsule.	In bed six weeks.	U. by bone.	6 w.	½ in.	Slight eversion.	Im.
21	54 y.	8 w.	M	R	S. without capsule.	Straight splint six weeks.	U. by bone.	6 w.	1 in.	— —	Im.
22	23 y.	2 m	M	L	Simple.	—	–	–	–	Fall on trochanter; no shortening of limb, but fragment displaced.	–
a	60 y.	1½ y.	F	R	Capsular.	No dressing.	N. U.	–	1½ in.	Reeder. Lacon, Ill.	Im.
b	60 y.	5 y.	F	R	S. probably within capsule.	No dressing.	N. U.	–	–	Great deformity when she bears weight of body on limb. Limps badly.	Im.
c	25 y.	–	M	–	Simple.	Extension 18 lbs.	U.	35 d.	–	Co. Hospital. Fenn.	Im.
d	54 y.	–	F	–	S. without capsule.	—	–	–	–	*Med. Times*, Oct. 15, 1870. Died.	Im.
e	13 y.	3 m.	M	R	Simple.	Extension. No splint.	U.	–	–	Fisher. *Chicago Med. Jour.*, 1867.	–
f	65 y.	5 m.	F	–	Impacted intracaps.	Straight splints, extension and counter-extension.	U.	7 w.	–	Died in five months. Union bony. Packard. *Am. Jour. Med. Sci.*, April, 1870.	–
g	70 y.	–	F	L	S. trans. intracaps.	Died 3d day.	–	–	–	Allen. *Am. Jour. M. S.*, July, 1867.	–
h	35 y.	5 m.	M	.	Complicated.	Double incline.	U.	–	3 in.	Fracture of shaft and comp. fracture of tibia and fibula of same limb.[1]	Im.
i	16 y.	38 y.	M	–	Impacted.	—	U.	–	–	McGraw. *Med. Record*, Feb. 1, 1873.	Im.
j	74 y.	–	F	R	Intracap.	No special.	–	–	–	*Med. Record*, July 15, 1873. Died.	Im.
k	65 y.	5 m.	F	R	Intracap. impacted.	Buck's apparatus.	U.	7 w.	–	*Am. Jour. Med. Sci.*, April, 1870.	–

[1] Amputation, subsequently.

TABLE VII.—FRACTURES OF THE FEMUR (*Continued*).

Below Trochanter Major. (*Upper Third.*)

No.	Age when it occurred.	Time since it occurred.	Sex.	Right or left side.	Character of the fracture.	Treatment.	Result.				
							United or not.	When united.	Amount of shortening.	Remarks.	Perfect or Imperfect.
23	27 y.	6 w.	M	R	Simple.	My own straight splint.	U.	3 w.	¾ in.	In all other respects perfect.	Im.
24	7 y.	4 w.	F	–	Simple.	My own straight splint, 4 weeks.	U.	4 w.	¼ in.	Nearly perfect.	Im.
25	30 y.	1 y.	M	R	Simple.	Gibson's straight splint, 2 weeks, then double inclined plane, &c.	U.	10 w.	¾ in.	Ulceration on instep.	Im.
26	–	2 y.	M	R	Simple.	Double inclined plane.	U.	–	1½ in.	— —	Im.
27	42 y.	4 y.	M	–	Simple.	—	U.	–	¾ in.	Slightly bent.	Im.
28	9 y.	31 y.	M	R	Simple.	—	U.	–	1½ in.	Limps very little.	Im.
29	55 y.	6 w.	M	–	Simple.	Straight splint.	U.	6 w.	¼ in.	Broken at seat of old fracture.	Im.
30	49 y.	7 w.	M	–	Simple.	Double inclined plane.	U.	–	½ in.	— —	Im.
31	1 y.	1 y.	M	R	Simple.	Lateral splints.	U.	–	None.	Slight bend at point of fracture, and slight inversion of toes.	P.
32	40 y.	–	M	R	Simple.	Straight splint 18 days. Double inclined plane 16 days.	U.	5 w.	½ in.	— —	Im.
33	13 y.	10 w.	M	L	Simple.	Potter's straight splint.	U.	–	1 in.	— —	Im.
34	5 y.	8 w.	M	L	Simple.	Straight splint.	U.	4 w.	¾ in.	No halt.	Im.
35	55 y.	2 m.	F	–	Simple.	Welsh's splint as a double inclined plane 1 week, then as a straight splint.	U.	–	½ in.	— —	Im.
36	47 y.	2 y.	F	L	Simple.	Various.	U.	–	1 in.	Bent forwards at seat of fracture.	Im.
37	29 y.	–	M	–	Simple.	Straight splint.	U.	52 d.	¾ in.	A refracture; slough on heel.	Im.
38	y.	12 y.	M	L	Simple.	—	U.	–	3⅞ in.	Fractured 3 times at same point.	Im.
39	14 y.	–	M	L	Complicated.	Day's double inclined plane.	N. U.	–	–	Death in 4 weeks.	Im.
a	40 y.	8 y.	M	R	Comminuted.	Double inclined plane.	U.	10 w.	1¼ in.	Fracture also in L. ½. Reeder, Lacon.	Im.
b	63 y.	6 m.	M	R	Comminuted.	Double inclined plane 2 weeks, then plaster of Paris with extension and weight.	U.	–	1 in.	Fracture in L. ½. Reeder, Lacon, Ill.	Im.
c	36 y.	5 y.	M	R	Simple oblique.	Straight splint 4 w. then starch bandage.	U.	7 w.	¾ in.	Projects outward. Wm. Hamilton.	Im.
d	1 y.	4 y.	M	L	Simple.	Short splints.	U.	5 w.	¼ in.	Cure good but not p. Wm. Hamilton.	Im.
e	8 y.	5 y.	M	R	Simple.	Buck's extension.	U.	–	None.	Useful soon after recovery. Reece.	P.
f	6 y.	4 y.	M	R	Simple.	Buck's extension.	U.	–	None.	Usefulness soon. Reece, Abingdon.	P.
g	30 y.	14 y.	M	R	Simple.	Long splint.	U.	–	½ in.	Up. frag. projects. Reece.	Im.

TABLE VII.—FRACTURES OF THE FEMUR (*Continued*).

Below Trochanter Major. (*Upper Third.*) (*Continued.*)

No.	Age when it occurred.	Time since it occurred.	Sex.	Right or left side.	Character of the fracture.	Treatment.	Result.				
							United or not.	When united.	Amount of shortening.	Remarks.	Perfect or Imperfect.
h	36 y.	6 y.	M	R	Simple.	Double inclined plane.	U.	–	3 in.	Excessive deformity.	Im.
i	37 y.	11 m.	M	R	Simple.	Long and short splints, with extension.	D. U.	3 m.	2 in.	Bingham. *Am. Jour. Med. Sci.*, April, 1869. Consecutive shortening.	Im.
j	17 y.	3 y.	M	R	Simple.	1 long, 3 short splints.	U.	5 w.	½ in.	Aldrich, Gilson, Ill.	Im.
k	12 y.	1 y.	M	L	Simple.	1 long, 3 short splints.	U.	4 w.	½ in.	Aldrich. Bends outward. Large callus.	Im.
l	83 y.	4 m.	M	R	Comminuted.	Plaster of Paris.	U.	–	¾ in.	Gibbes. *Med. Record*, May 15, 1875.	Im.
m	37 y.	–	–	R	Simple.	Buck's apparatus	U.	3 m.	2 in.	Bingham. *Am. J. M. S.*, April, 1869.	Im.

Shaft. (*Middle Third.*)

40	9 y.	3 m.	M	L	Simple.	Straight splint.	U.	4 w.	None.	—	P.
41	13 y.	1 m.	M	–	Simple.	Straight splint.	U.	3 w.	None.	—	P.
42	9 y.	1 y.	M	R	Simple.	—	U.	–	None.	Slightly bent out and forwards.	P.
43	3 y.	63 y.	M	–	Simple.	—	U.	–	None.	—	P.
44	15 y.	30 y.	M	–	Simple.	—	U.	–	None.	—	P.
45	3 y.	1 y.	M	–	Simple.	Pillows.	U.	–	None.	—	P.
46	5 y.	2 y.	M	R	Simple.	Straight splint.	U.	–	–	—	–
47	8 y.	6 w.	F	R	Simple.	Straight splint.	U.	4 w.	½ in.	—	Im.
48	19 y.	1 y.	M	L	Simple.	J. F. Flagg's straight splint.	U.	5 w.	½ in.	Bent outwards at seat of fracture.	Im.
49	9 y.	46 d.	M	R	Simple.	Gibson's splint.	U.	46 d.	½ in.	—	Im.
50	18 y.	1 m.	M	L	Simple.	Straight splint.	U.	23 d.	½ in.	—	Im.
51	10 y.	2 m.	M	–	Simple.	Hamilton's st. sp.	U.	1 m.	½ in.	—	Im.
52	12 y.	5 w.	M	L	Simple.	Hamilton's st. sp.	U.	5 w.	½ in.	—	Im.
53	11 y.	11 w.	M	R	Simple.	Straight splint.	U.	–	½ in.	—	Im.
54	6 y.	–	M	R	Simple.	Gibson and then Hamilton's st. splint.	U.	1 m.	¼ in.	Slightly bent forwards and outwards.	Im.
55	22 y.	2 m.	M	R	Simple.	—	U.	–	2 in.	Much bent outwards at seat of fracture.	Im.
56	36 y.	4 m.	M	–	Simple.	Straight splint.	U.	–	1 in.	—	Im.
57	22 y.	2 m.	M	R	Simple.	Flagg's st. splint.	U.	2 m.	½ in.	—	Im.
58	8 y.	5 y.	M	L	Simple.	Double inclined plane.	U.	–	½ in.	—	Im.
59	5 y.	11 d.	M	L	Simple.	Side splint only.	U.	11 d.	¾ in.	—	Im.
60	40 y.	2 m.	M	L	Simple.	Straight splint.	U.	3 w.	½ in.	—	Im.
61	22 y.	9 w.	M	R	Simple.	Straight splint.	U.	–	½ in.	—	Im.
62	13 y.	13 y.	M	–	Simple.	—	U.	–	1¼ in.	No halt; spine crooked.	Im.
63	15 y.	19 y.	M	L	Simple.	—	U.	–	½ in.	—	Im.
64	16 y.	25 y.	M	L	Simple.	—	U.	–	½ in.	No halt.	Im.
65	30 y.	5 y.	M	L	Simple.	—	U.	–	1½ in.	—	Im.
66	25 y.	17 w.	M	L	Simple.	Straight splint.	U.	–	¼ in.	Upper frag. on inside of lower.	Im.
67	30 y.	1 y.	M	L	Simple.	Double inclined plane.	U.	–	¾ in.	Some bent outwards at seat of fracture.	Im.
68	7 y.	6 w.	M	–	Simple.	Gibson's str. spl. 2 weeks, then Hamilton's.	U.	39 d.	½ in.	—	Im.

TABLE VII.—FRACTURES OF THE FEMUR (*Continued*).

Shaft. (*Middle Third.*) (*Continued.*)

No.	Age when it occurred.	Time since it occurred.	Sex.	Right or left side.	Character of the fracture.	Treatment.	Result.				
							United or not.	When united.	Amount of shortening.	Remarks.	Perfect or Imperfect.
69	40 y.	4 y.	M	R	Simple.	Double inclined plane.	U.	6 w.	1 in.	Bent forwards at seat of fracture.	Im.
70	8 y.	1 y.	M	L	Simple.	Desault's straight splint.	U.	–	–	Bending of limb from non-consolidation of callus; bent outwards.	Im.
71	8 y.	22 y.	M	–	Simple.	Straight splint.	U.	–	½ in.	Broken twice at same point.	Im.
72	14 y.	15 w.	M	L	Simple.	Straight splint; after 11 weeks Hamilton's spl.	D. U.	13 w.	¾ in.	— —	Im.
73	22 y.	1 y.	M	R	Simple.	—	U.	–	3 in.	Refract. after 4 m., and reunion after 40 days more.	Im.
74	23 y.	7 m.	M	L	Simple.	Double inclined plane.	U.	–	2 in.	Bent forwards at seat of fracture.	Im.
75	23 y.	7 m.	M	R	Comminuted.	First double inclined plane; straight splints after 5 weeks.	D. U.	5 m.	2 in.	Same case as 74.	Im.
76	4 y.	5 y.	F	L	Simple.	Double inclined plane.	U.	–	–	At first bent forwards, and subsequently becoming straight.	Im.
77	4 y.	5 y.	F	R	Comminuted.	Double inclined plane.	U.	–	–	Same case as 76.	Im.
78	28 y.	12 y.	M	R	Simple.	Straight splint.	U.	7 w.	1 in.	Mollites ossium; both legs bent.	Im.
79	25 y.	2 m.	M	L	Compl'd	Straight splint.	U.	–	½ in.	— —	Im.
80	14 y.	8 y.	M	R	Simple.	Side splints and flexed position.	U.	–	–	Paralytic limb; exact result unknown.	–
81	18 y.	10 w.	M	R	Comp'd.	Potter's str. spl.	U.	–	1½ in.	— —	Im.
82	8 y.	2 m.	M	L	Comp'd.	Pott's method.	U.	2 m.	1 in.	— —	Im.
83	24 y.	2 m.	M	L	Comp'd.	My own splint.	U.	–	½ in.	Gunshot fracture.	Im.
84	35 y.	2 m.	M	R	Comp'd.	Double inclined plane.	U.	–	2 in.	Bent forwards at seat of fracture.	Im.
85	14 y.	17 y.	M	L	Comp'd commin.	Double inclined plane.	U.	–	1 in.	Atrophy of limb; slight halt.	Im.
86	23 y.	38 y.	M	–	Comp'd commin.	—	U.	–	1½ in.	Gunshot fracture.	Im.
a	31 y.	5 y.	M	R	Simple oblique.	Straight splint.	U.	7 w.	¾ in.	Slight outw'rd curve. Wm. Hamilton.	Im.
b	11 y.	1 y.	F	L	Green stick.	Str. spl. Starch bandage after 3 weeks.	U.	5 w.	None.	Slight outw'rd curve. Wm. Hamilton	Im.
c	1 y.	4 y.	M	R	–	Short splints.	U.	4 w.	⅜ in.	Cure good but not perfect. Wm. Hamilton.	Im.
d	55 y.	4 y.	M	L	Simple.	Buck's extension	U.	–	¾ in.	Upper frags. projects out. Reece.	Im.
e	50 y.	1 y.	M	L	Simple.	Buck's extension	U.	–	½ in.	Reece, Abingdon, Ill.	Im.
f	10 y.	17 y.	M	L	Simple	Long splint.	U.	–	None.	Reece, Abingdon, Ill.	P.
g	24 y.	5 y.	M	R	Simple.	Long splint.	U.	–	½ in.	Difficult to use. Reece.	Im.
h	12 y.	1 y.	M	L	Simple.	Buck's extension	U.	–	¼ in.	Limb straight.	Im.
i	60 y.	5 y.	M	R	Simple, compl'd.	Buck's extension	U.	1 m.	½ in.	Disloc. of left knee. Limb straight.	Im.
j	14 y.	1 y.	F	L	Simple oblique.	Hamilton's extension.	U.	32 d	¼ in.	No deformity.	Im.

TABLE VII.—FRACTURES OF THE FEMUR (*Continued*).

Shaft. (*Middle Third.*) (*Continued.*)

No.	Age when it occurred.	Time since it occurred.	Sex.	Right or left side.	Character of the fracture.	Treatment.	Result. United or not.	When united.	Amount of shortening.	Remarks.	Perfect or Imperfect.
k	15 y.	2 y.	M	L	Simple oblique.	Hamilton's apparatus.	U.	35 d.	$\frac{1}{3}$ in.	Toes slightly inverted.	Im.
l	22 y.	1 y.	M	–	Simple oblique.	Not known.	N. U.	–	1 in.	*M. and S. Reporter*, vol. 12, p. 257.	Im.
m	4 y.	–	M	L	Compound.	Simple extension.	U.	–	–	*Med. Record*, vol. 1, p. 239.	–
n	9 y.	–	M	R	Simple.	Buck's apparatus	–	–	$\frac{3}{8}$ in.	*Med. Record*, vol. 1, p. 240.	Im.
o	13 y.	–	–	L	S. complicated.	—	U.	6 w.	–	See case *d*, above condyles.	P.
p	22 y.		M	R	Comp'd commin.	Wood's hammock splint.	U.	8 w.	$\frac{3}{4}$ in.	*Lancet and Observer*, April, 1874.	Im.

Remote from Condyles. (*Lower Third.*)

87	8 y.	2 m.	M	–	Simple.	Hamilton's str. splint, &c.	U.	1 m.	None.	— —	P.
88	3 y.	1 y.	M	L	Simple.	Double inclined plane 13 days, then Hamilton's straight splint.	U.	–	None.	On 13th day limb was shortened before straight splint was applied.	P.
89	24 y.	30 y.	M	R	Simple.	Double inclined plane.	U.	–	$1\frac{3}{4}$ in.	Slight halt.	Im.
90	42 y.	5 y.	M	–	Simple.	—	U.	–	1 in.	— —	Im.
91	42 y.	7 w.	M	–	Simple.	Straight splint.	U.	–	$\frac{1}{2}$ in.	— —	Im.
92	11 y.	1 m.	M	R	Simple.	Straight splint.	U.	1 m.	$\frac{1}{4}$ in.	Upper fragment on outside of lower.	Im.
93	27 y.	2 m.	F	R	Simple.	Straight splint.	U.	5 w.	$\frac{3}{4}$ in.	— —	Im.
94	10 y.	4 y.	M	–	Simple.	My own straight splint.	U.	1 m.	$\frac{1}{2}$ in.	Slight forward projection at seat of fract. at end of 1 m.	Im.
95	20 y.	3 m.	M	–	Simple.	Gibson's straight splint.	U.	–	$\frac{1}{2}$ in.	— —	Im.
96	25 y.	6 w.	M	–	Simple.	Straight splint.	U.	6 w.	$\frac{1}{2}$ in.	Ulcer on heel.	Im.
97	23 y.	11 w.	M	L	Simple.	—	D. U.	11 w.	–	Ulcer on heel.	Im.
98	30 y.	2 m.	M	–	Complicated.	My own straight splint.	U.	–	$\frac{1}{4}$ in.	— —	Im.
99	23 y.	6 m.	M	L	Compound.	Double inclined plane and plaster of Paris.	U.	–	3 in.	Refract. end of 2 m.; reunited in 3 w.; toes everted; fistula; unable to walk after 6 m.	Im.
100	23 y.	7 m.	M	R	Comminuted	See case 75.	U.	–	2 in.	See case 75.	Im.
a	40 y.	8 y.	M	R	Comminuted	Double incline.	U.	10	$1\frac{1}{2}$ in.	Reeder. Lacon, Ill.	Im.
b	63 y.	6 m.	M	R	Comminuted	Double inclined plane 2 weeks, then plaster.	U.	–	1 in.	Reeder; a & b fract. in upper third.	Im.
c	28 y.	1 y.	M	L	Simple oblique.	Straight splint; starch bandage after 10 days	U.	5 w.	None.	No curvature. Wm. Hamilton.	P.
d	42 y.	$2\frac{1}{2}$ y.	F	L	Simple oblique.	Starch bandage	U.	6 w.	$\frac{1}{2}$ in.	Wm. Hamilton, Galesburg, Ill.	Im.

TABLE VII.—FRACTURES OF THE FEMUR (*Continued*).

Remote from Condyles. (*Lower Third.*) (*Continued.*)

No.	Age when it occurred.	Time since it occurred.	Sex.	Right or left side.	Character of the fracture.	Treatment.	Result. United or not.	When united.	Amount of shortening.	Remarks.	Perfect or Imperfect.
e	50 y.	10 m.	M	L	Simple.	Buck's extension, 12 to 16 pounds.	U.	6 w.	¼ in.	Ensheathing callus.	Im.
f	13 y.	18 y.	M	L	Simple.	Double inclined plane.	U.	6 w.	1 in.	Curved outwards; limps.	Im.
g	13 y.	31 y.	M	R	Simple.	Short splints.	U.	2 m.	1½ in.	No deformity.	Im.
h	54 y.	–	M	R	Complicated.	Extension.	U.	43 d. –	½ in.	Fenn. *Chicago Med. Jour.*, Oct. 1869.	Im.
i	21 y.	–	M	L	Complicated.	Extension 18 lbs.	U.		1¼ in.	Fracture of patella, case *b*.	Im.

Just above Condyles and Condyles. (*Lower Third.*)

101	4 y.	26 y.	M	R	Simple.	—	U.	–	½ in.	— —	Im.
102	25 y.	16 m.	M	L	Simple.	Long side splint without extension.	U.	–	1½ in.	Up. frag. in front & outside of lower.	Im.
103	25 y.	5 m.	M	R	Simple.	Straight splint.	D. U.	–	¾ in.	Not united after 5 months.	Im.
104	20 y.	5 y.	M	R	Comp. & comminuted.	—	U.	–	7 in.	Portions of bone lost by exfoliation.	Im.
105	7 y.	2 y.	M	R	Complicated.	Double inclined plane.	U.	–	1 in.	Sloughing of parts of foot.	Im.
a	47 y.	18 m.	M	L	Complicated.	Forcible flexion.	N. U.	–	–	Necrosis of frag. of inner tuberosity. Use of joint good.	Im.
b	18 y.	6 m.	M	–	Compound comminuted.	Inclined ⅝ plane; apparatus immobile.	D. U.	6 m.	–	*Gazette Hebdom.*, No. 31, 1870. *Half-yearly Abst.* Dec., 1870.	–
c	26 y.	4 m.	M	R	Transverse.	—	D. U.	27 m.	–	*Half-yearly Abst.* July, 1869.	Im.
d	13 y.	–	–	R	Compound complic.	Iron splints.	U.	6 w.	½ in.	*Lancet*, Oct. 12, 1867. See case *o*, middle third shaft of left femur.	Im.
e	50 y.	4 m.	M	R	Simple.	Splints; fract. box, &c.	U.	–	–	*Am. Jour. M. Sci.*, Oct., 1866.	Im.

PATELLA.

In fractures of the patella, as in fractures of the olecranon, we may have loss of function from the muscles drawing the fragments apart instead of by each other. Drawn apart, it is usual for the fragments to unite by ligament rather than by bone, hence the propriety of dressing these fractures with the limb in a straight position, thus keeping fragments in as *near apposition* as possible. Yet, when brought so near together that the fragments almost touch the presence of fluid (synovia) between them in the vast majority of cases prevents bony union. Weakness and indeed considerable atrophy of the *quadriceps extensor* may follow the accident; over this the surgeon, I apprehend, has no control. From the table it will be seen how seldom union takes place by bone. In respect to the union being bony, it is a mere matter of *opinion*, in the living subject, and will require, for its establishment as a *fact*, a *post mortem* examination. It may sometimes happen that the effusion into the joint, from the synovitis that follows the injury, may be so great that no mechanical contrivance will be able to approximate the fragments. Possibly this effusion has as much to do with the separation of the fragments as the contraction of the *quadriceps extensor femoris*.

TABLE VIII.—FRACTURES OF THE PATELLA.

No.	Age when it occurred.	Time since it occurred.	Sex.	Right or left side.	Character of the fracture.	Treatment.	Result.				
							United or not.	When united.	United by	Remarks.	Perfect or Imperfect.
1	5 y.	6 m.	M	L	Simple oblique.	Straight position.	U.	-	B.	— —	P.
2	20 y.	6 w.	M	R	S. trans.	A. Cooper's apparatus.	U.	6 w.	Lig.	Lig. ¼ inch in length.	Im.
3	36 y.	-	M	-	S. trans.	My own apparat.	U.	-	Lig.	Lig. ¼ inch in length.	Im.
4	25 y.	-	M	-	S. trans.	My own apparat.	U.	-	Lig.	Lig. ¼ inch in length.	Im.
5	56 y.	5 w.	M	L	S. trans.	Only bandages.	U.	5 w.	Lig.	Lig. ½ inch in length.	Im.
6	33 y.	2 y.	M	L	S. trans.	—	U.	24 d.	Lig.	Lig. ½ inch; limb not so strong as other.	Im.

TABLE VIII.—FRACTURES OF THE PATELLA (*Continued*).

No.	Age when it occurred.	Time since it occurred.	Sex.	Right or left side.	Character of the fracture.	Treatment.	Result. United or not.	When united.	United by.	Remarks.	Perfect or Imperfect.
7	30 y.	4 w.	M	–	S. trans. by muscular action.	My own apparat.	U.	4 w.	Lig.	Lig. ½ inch in length.	Im.
8	40 y.	9 w.	M	–	S. trans. &c.	—	U.	4 w.	Lig.	Lig. partially torn at end of 4 weeks; much callus; lig. ¼ inch in length.	Im.
9	22 y.	6 w.	M	R	S. trans.	My own apparat.	U.	37 d.	Lig.	Lig. ½ in. in length.	Im.
10	22 y.	6 w.	M	L	S. trans.	My own apparat.	U.	37 d.	Lig.	Lig. ¼ in. in length.	Im.
11	30 y.	4 m.	M	L	S. trans.	—	U.	2 m.	Lig.	— —	Im.
11	30 y.	2 m.	M	L	S. trans.	My own apparat.	U.	6 w.	Lig.	This was fract. at 2d point, 4 weeks after 1st; it united by lig. ¼ in. in length.	Im.
12	24 y.	29 y.	M	R	S. trans.	Single inclined plane, &c., continued four months.	N. U.	–	–	Was not able to walk with a cane under 18 months; frags. separated 2½ to 5 inches, according to position of leg; walks tolerably well.	Im.
13	25 y.	5 m.	M	L	Comminuted, complicated.	Straight splint, &c.	U.	58 d.	B.	Main frag. separated ½ an inch by what feels like bone; small frag. loose; knee-joint stiff.	Im.
a	30 y.	27 d.	M	R	S. trans.	Single inclined plane; fig. 8 bandage.	U.		–	Pennsylv. Hospital. Agnew, *Med. Times*, April 1, 1871.	Im.
b	21 y.	–	M	L	Comminuted.	—	U.	4 w.	Bone.	Fract. of femur, case *i*, lower third.	Im.
c	–	–	M	–	Comminuted.	Malgaigne's hooks.	U.	6 w.	–	*Med. Press & Circular*, Sept. 22, 1869.	P.

TABLE IX.—FRACTURES OF THE TIBIA.

Shaft. (*Upper Third.*)

1	58 y.	6 w.	F	R	S. transverse.	Lateral splints, pillows, &c.	U.	–	–	— —	P.
2	29 y.	3 m.	M	L	S. transverse.	Lateral splints.	U.	3 m.	–	Knee stiff.	P(?).
3	42 y.	10 w.	M	–	Simple.	—	U.	–	–	Slight bend.	P.
4	8 y.	37 y.	M	L	Simple.	Lateral splints.	U.	–	–	— —	P.

TABLE IX. — FRACTURES OF THE TIBIA (*Continued*).

Shaft. (*Upper Third.*) (*Continued.*)

No.	Age when it occurred.	Time since it occurred.	Sex.	Right or left side.	Character of the fracture.	Treatment.	Result.				
							United or not.	When united.	Amount of shortening.	Remarks.	Perfect or Imperfect.
5	55 y.	2 y.	M	–	S. with dis. of fibula.	—	U.	–	¼ in.	Slight bend; fibula displaced.	Im.
a	56 y.	18 m.	M	R	S. transverse.	Starch bandage.	U.	2 m.	None.	2 in. below knee; still lame. Wm. Hamilton, Galesburg, Ill.	Im.
b	18 y.	4 y.	M	L	Simple.	Starch bandage.	U.	4 w.	½ in.	Bends outward at point of fracture. Aldrich, Gilson, Ill.	Im.

Shaft. (*Middle Third.*)

[6	50 y.	2 m.	F	L	S. transverse.	Starch bandage.	U.	2 m.	–	— —	P.
7	46 y.	10 m.	M	–	Simple.	—	U.	–	–	Slight forward bend at seat of fracture.	P.
8	11 y.	6 y.	M	R	S. transverse.	Paste bandage.	U.	–	–	— —	P.
9	17 y.	11 y.	M	R	Simple.	—	U.	–	–	— —	P.
10	30 y.	4 y.	M	L	Simple.	—	U.	–	–	— —	P.
11	24 y.	30 y.	M	–	Simple.	Lateral splints.	U.	–	–	— —	P
12	17 y.	4 y.	M	–	Simple.	—	U.	–	–	— —	P.
13	11 y.	16 y.	M	R	Simple.	—	U.	–	–	— —	P
14	53 y.	4 y.	M	–	Simple.	—	U.	–	–	— —	P.
15	26 y.	9 y.	M	R	Compound.	—	U.	–	–	Ulcer over seat of fracture.	Im.
16	39 y.	99 d.	M	R	Compound.	Double inclined plane, &c.	U.	About 80 d.	–	Upper frag. a little in front of lower.	Im.
17	28 y.	7 m.	M	–	Comp'd commin.	—	U.	–	¼ in.	Removed a loose fragment after 7 m.	Im.
a	25 y.	10 y.	M	L	Simple.	Short splints and double inclined plane.	U.	–	–	Purdum, Hermon, Ill.	P.
b	15 y.	8 y.	M	L	Simple.	Long splint.	U.	–	¾ in.	Purdum, Hermon, Ill.	Im.
c	22 y.	4 y.	M	R	Simple.	Starch bandage.	U.	5 w.	None.	Wm. Hamilton, Galesburg, Ill.	P.
d	30 y.	3 y.	M	L	Simple.	Starch bandage.	U.	5 w.	None.	No deformity. Wm. Hamilton.	P.
e	22 y.	8 y.	M	R	Simple.	Starch bandage.	U.	5 w.	None.	No deformity. Wm. Hamilton.	P.
f	48 y.	1 y.	M	L	Simple.	Starch bandage.	U.	5 w.	None.	No deformity. Wm. Hamilton.	P.
g	13 y.	5 y.	M	R	Simple.	Starch bandage.	U.	4 w.	None.	No deformity. Wm. Hamilton.	P.
h	10 y.	8 y.	M	L	Simple oblique.	Lateral splints.	U.	1 m.	–	Broken limb ⅛ in. longest. Spine of tibia very round.	P.
i	22 y.	–	M	R	Simple.	Plaster of Paris.	U.	–	–	Leg bows out. Fenn.	Im.
j	26 y.	3 m.	M	L	Simple.	Plaster of Paris.	D. U.	3 m.	–	*Am. Jour. Med. Sci.*, July, 1867.	–
k	10 y.	1 m.	M	L	Simple.	Tin side splints.	U.	–	¼ in.	Fract. united.	Im.
l	15 y.	1 m.	M	R	Simple.	Tin side splints.	U.	1 m.	½ in.	Severe contusion of soft tissues.	Im.
m	45 y.	14 w.	M	R	Compound.	—	N. U.	–	–	*Med. Times*, Oct. 1, 1870.	Im.
n	22 y.	18 y.	M	R	S. transverse.	No dressing.	U.	–	–	Exuberant callus and ulcer after 18 y.	Im.

TABLE IX.—FRACTURES OF THE TIBIA (*Continued*).

Above Malleolus. (*Lower Third.*)

No.	Age when it occurred.	Time since it occurred.	Sex.	Right or left side.	Character of the fracture.	Treatment.	Result.				
							United or not.	When united.	Amount of shortening.	Remarks.	Perfect or Imperfect.
18	33 y.	3 y.	M	R	Simple.	—	U.	–	–	— —	P.
19	17 y.	6 y.	M	L	Comp'd.	—	U.	–	–	Slight deformity.	Im.
a	20 y.	6 y.	M	L	Simple.	Starch bandage.	U.	5 w.	None.	Wm. Hamilton.	P.
b	43 y.	2 y.	M	R	Simple.	Starch bandage.	U.	5 w.	None.	Wm. Hamilton. No deformity.	P.
c	12 y.	2½ y.	M	L	Simple.	Starch bandage.	U.	4 w.	None.	Wm. Hamilton. No deformity.	P.
d	28 y.	5 m.	F	R	Simple.	—	N. U.	–	–	Agnew, *M. & S. Reporter*, vol. 12, p. 275.	Im.

Malleolus. (*Lower Third.*)

20	28 y.	10 w.	M	R	Comp'd compl'd.	Bowen's splints, &c.	U.	–	–	Several frags. of bone discharged.	Im.

TABLE X.—FRACTURES OF THE FIBULA.

Shaft. (*Middle Third.*)

1	12 y.	2 y.	M	L	S. with disloc. of tibia inwards	—	U.	–	–	Tibia slightly inclined in; and fibula rests against tibia; motions unimpaired.	Im.
2	20 y.	5 y.	M	L	Comp. with dis. of tibia inwards.	—	U.	–	–	— —	P.
3	14 y.	28 y.	M	L	Comp. with dis. of tibia inwards.	—	U.	–	–	— —	P.
a	22 y.	9 y.	M	L	Simple.	Straight splint.	U.	–	–	Purdum.	P.

Shaft. (*Lower Third.*)

4	40 y.	6 m.	M	L	Simple.	Dupuytren's spl.	U.	–	–	— —	P
5	57 y.	4 w.	M	–	Simple.	—	U.	–	–	— —	P.
6	34 y.	4 y.	M	L	Simple.	—	U.	–	–	— —	P.
7	34 y.	24 y.	M	L	Simple.	—	U.	–	–	— —	P.
8	26 y.	9 m.	M	R	Simple.	Dupuytren's spl.	U.	–	–	— —	P.
9	25 y.	6 w.	M	L	Simple.	Cold water dress.	U.	–	–	— —	P.
10	60 y.	2 m.	F	L	S. with dis. of tibia inwards.	Dupuytren's spl.	U.	–	–	— —	P.
11	20 y.	4 y.	M	R	Simple.	—	U.	–	–	Foot inclined out; fibula falls against tibia; motions of joint perfect.	Im.

TABLE X.—FRACTURES OF THE FIBULA (*Continued*).

Shaft. (*Lower Third.*) (*Continued.*)

No.	Age when it occurred.	Time since it occurred.	Sex.	Right or left side.	Character of the fracture.	Treatment.	Result.				
							United or not.	When united.	Amount of shortening.	Remarks.	Perfect or Imperfect.
12	32 y.	20 y.	M	L	Simple.	—	U.	–	–	Occasionally swells.	Im.
13	30 y.	2 y.	M	L	S. dis. of tibia inwards.	Dupuytren's spl.	U.	–	–	After 2 y. occasionally swells.	Im.
14	32 y.	3 m.	M	–	S. dis. of tibia inwards.	—	U.	–	–	Tibia slightly displaced in, and fibula falls against tibia.	Im.
15	35 y.	5 w.	M	–	S. dis. of tibia inwards.	Dupuytren's spl.	U.	–	–	Slight projection of malleolus intern.	Im.
16	22 y.	20 y.	M	L	S. dis. of tibia inwards.	—	U.	–	–	Up. frag. of fibula behind lower; ankle stiff, &c.	Im.
17	21 y.	8 m.	M	–	S. ext. mal. dis. of tibia inwards.	—	U.	–	–	Lower frag. of fibula carried down; slight projection of mal. inter.	Im.
18	12 y.	10 y.	M	L	S. dis. of tibia outw.	—	U.	–	–	Frags. of fibula fall against tibia; ankle not stiff.	Im.
19	35 y.	6 m.	M	–	S. dis. of tibia forwards	—	U.	–	–	Exfoliation of bone; ankle stiff.	Im.
a	41 y.	5 y.	M	R	Simple.	Starch bandage.	U.	5 w.	–	No deformity. Wm. Hamilton.	P.
b	45 y.	3 y.	F	L	Simple.	Dessault's dressing.	U.	–	–	Reece, Abingdon, Ill.	P.
c	60 y.	3 y.	M	L	Simple.	Pasteboard.	U.	–	–	Reece, Abingdon, Ill.	P.
d	30 y.	2 y.	M	L	Simple.	No dressing.	U.	–	–	Reece, Abingdon, Ill.	P.
e	50 y.	2 y.	M	L	Simple.	Pasteboard.	U.	–	–	Reece, Abingdon, Ill.	P.
f	70 y.	3 y.	M	L	Simple.	Dessault's dressing.	U.	–	–	Reece, Abingdon, Ill.	P.
g	35 y.	10 y.	M	L	Simple.	Dessault's dressing.	U.	–	–	Reece, Abingdon, Ill.	P.
h	35 y.	9 y.	M	R	Compound.	Dupuytren's.	U.	–	–	Tibia inclines inward; exter. mal. projects.	Im.
i	10 y.	40 y.	F	R	Simple.	Ox-bow splint.	U.	–	–	No trace of fracture.	P.
j	39 y.	19 y.	M	R	Simple.	Lateral splints.	U.	–	–	Enlargement at seat of fracture. Anchylosis 10 years.	Im.
k	25 y.	2 y.	M	L	Simple.	No dressing.	U.	–	–	Great deformity; anchylosis.	Im.
l	12 y.	2 y.	M	L	Simple.	Dupuytren.	U.	–	–	No trace of fracture.	P.
m	20 y.	3 m.	M	L	Simple.	No dressing first 10 w., then Dupuytren.	U.	–	–	Tibia badly inwards. Anchylosis.	Im.
n	53 y.	1 m.	M	L	Simple.	Fract. box and Silic. of soda.	U.	1 m.	–	Diastasis of malleoli. Keen. *Med. Times*, vol. 2, p. 427.	Im.
o	34 y.	4 y.	M	R	Simple.	Dupuytren's.	U.	5 w.	–	Aldrich, Gilson, Ill.	P.
p	24 y.	3 y.	M	L	Simple.	Dupuytren's.	U.	24 d.	–	Aldrich, Gilson, Ill.	P.
q	16 y.	5 m.	M	R	Simple.	No dressing.	U.	–	–	Talipes valgus.	Im.

TABLE XI.—FRACTURES OF THE TIBIA AND FIBULA.

Shaft. (*Upper Third.*)

No.	Age when it occurred.	Time when it occurred.	Sex.	Right or left side.	Character of the fracture.	Treatment.	Result.					
							United or not.	When united.	Amount of shortening.	Remarks.		Perfect or Imperfect.
1	25 y.	–	M	–	Simple; frag. of tibia never disp'ced.	Gutta percha splints.	U.	–	No.	—	—	P.
2	21 y.	5 y.	M	–	Simple.	—	U.	–	$\frac{5}{16}$ in.	—	—	Im.
3	–	–	M	–	Simple.	—	U.	–	$\frac{1}{2}$ in.	—	—	Im.
4	35 y.	4 m.	M	R	Simple.	Lateral splints, &c.	D. U.	119 d.	$\frac{1}{4}$ in.	Slight forward projection of upper frag. of tibia.		Im.
5	39 y.	6 y.	M	R	Simple.	—	U.	–	$1\frac{1}{2}$ in.	Tibia bent back at seat of fracture; anchylosis of knee (partial).		Im.
6	30 y.	40 d.	M	L	Comp'd.	Felt splints and double inclined plane.	U.	–	No.	Result uncertain.		
7	25 y.	5 y.	M	R	Simple comminuted.	—	U.	–	–	Same patient as 6.		–
8	34 y.	8 y.	M	–	Comp'd.	—	U.	–	$\frac{3}{4}$ in.	Tibia bent at seat of fracture.		Im.
9	50 y.	28 m.	M	–	Comp'd comminuted.	Side splints, box, starch bandage, &c.	U.	63 d.	$\frac{3}{4}$ in.	Several fragments removed.		Im.

Shaft. (*Middle Third.*)

10	38 y.	26 d.	M	–	Simple.	Paste bandage.	U.	35 d.	No.	—	—	P.
11	16 y.	–	M	–	Simple; frag. of tibia never disp'ced.	—	U.	–	No.	—	—	P.
12	17 y.	40 d.	M	L.	S. ; ob. of tibia.	Double inclined plane; paste bandage, &c.	U.	40 d.	No.	—	—	P.
13	10 y.	15 y.	M	L	Simple.	—	U.	–	No.	—	—	P.
14	19 y.	–	M	–	Simple; trans. tibia.	Paste bandage.	U.	–	No.	—	—	P.
15	15 y.	27 d.	M	L	Simple; tibia ob.	Gutta percha & double inclin'd plane.	U.	21 d.	No.	Straightened on 21st day.		P.
16	20 y.	2 y.	M	–	Simple.	—	U.	22 d.	No.	Ankle occasionally painful.		P.
17	31 y.	6 w.	M	R	Simple; frag. of tibia never disp'ced.	Paste bandage, &c.	U.	42 d.	No.	—	—	P.
18	70 y.	4 w. and 5 d.	M	L	Simple.	Side splints, &c.	U.	33 d.	–	Lower frag. of tibia, in front of upper.		Im.

TABLE XI.—FRACTURES OF THE TIBIA AND FIBULA (*Continued*).

Shaft. (*Middle Third.*) (*Continued.*)

No.	Age when it occurred.	Time when it occurred.	Sex.	Right or left side.	Character of the fracture.	Treatment.	Result.				
							United or not.	When united.	Amount of shortening.	Remarks.	Perfect or Imperfect.
19	63 y.	4 m.	M	–	Simple.	—	U.	–	No.	Ulcer over point of fracture 4 months after.	P(?).
20	30 y.	5 w.	M	L	Simple; frag of tibia never disp'ced.	—	U.	–	–	— —	P.
21	14 y.	5 w. & 2 d.	M	L	Simple; tibia trans.; frag. never disp'ced.	Paste bandage.	U.	40 d.	No.	— —	P.
22	41 y.	3 m.	M	L	Simple; tibia ob.; fract. by muscular action; frag. never disp'ced.	Copper splints; Pott's position.	U.	–	No.	— —	P.
23	38 y.	8 m.	M	–	Simple.	Paste bandage, &c.	U.	–	½ in.	Lower frag. of tibia in front of upper; unable to walk without crutches after 8 months.	Im.
24	18 y.	46 d.	F	–	Simple; tibia oblique.	Paste bandage, &c.	U.	48 d.	¾ in.	Upper frag. of tibia in front of lower.	Im.
25	25 y.	11 w.	M	–	Simple; tibia ob. with concussion of spine.	Side splints and a box.	U.	–	1 in.	— —	Im.
26	18 y.	5 m.	F	R	Simple; tibia oblique.	Side splints.	U.	–	1 in.	Upper frag. of tibia outside of lower; began to walk in 5 months.	Im.
27	–	6 w.	F	L	Comp'd.	Gutta percha side splints; pillows.	U.	42 d.	No.	Fistulous discharge after 6 weeks.	P.
28	35 y.	4 m.	M	–	Comp'd	—	U.	–	No.	— —	P.
29	65 y.	47 d.	F	L	Comp'd; tibia ob.	Pott's method 2 weeks, then double inclined plane; gutta percha.	U.	26 d.	¼ in.	No deformity.	Im.
30	35 y.	–	M	R	Comp'd. (both legs.)	Double inclined plane.	D. U.	–	¾ in.	Frag. of tibia bent forwards; slough on heel at end of 7 weeks.	Im.
31	25 y.	12 d.	M	L	Comp'd (with other fract.)	—	U.	–	–	— —	Im.

TABLE XI.—FRACTURES OF THE TIBIA AND FIBULA (*Continued*).

Shaft. (*Middle Third.*) (*Continued.*)

No.	Age when it occurred.	Time since it occurred.	Sex.	Right or left side.	Character of the fracture.	Treatment.	Result.				
							United or not.	When united.	Amount of shortening.	Remarks.	Perfect or Imperfect.
32	4 y.	23 y.	M	-	Comp'd.	—	U.	-	½ in.	Paralysis of lower ext. produced by healing ulcer of 22 years, over seat of fracture.	Im.
33	22 y.	3 m.	M	L	Comp'd; tibia ob. (with other fract.)	—	U.	-	1½ in.	Upper frag. of tibia in front; ulcer on heel, &c.	Im.
34	8 y.	-	M	R	Comp'd; tibia trans.	Side splints, pillow, cold water, &c.	-	-	-	Died in 3 months.	-
35	19 y.	5 w.	M	R	Comminuted. (both legs) tibia ob.	Starch bandage, &c.	U.	35 d.	-	Not crooked; whether shortened or not cannot determine.	-
36	14 y.	40 y.	M	L	Comp'd comminuted.	—	U.	-	No.	— —	P.
37	28 y.	57 d.	M	L	Comp'd comminuted: tibia ob.	Double inclined plane, &c.; paste bandage, after 7 weeks.	U.	56 d.	½ in.	— —	Im.
38	33 y.	3 y.	M	R	Comp'd; tibia trans.	Mayor's dressing, cool lotions, a box, &c.	U.	-	¼ in.	Upper frag. of tibia in front of lower very much; useful limb.	Im.
39	48 y.	5 w	M	L	Comp'd comminuted, with other complicat'ns.	Box, paste bandage, and later, double inclined plane.	U.	35 d.	½ in.	Stiffness in ankle after 9 months.	Im.
40	23 y.	4 w.	M	R	Comp'd comminuted, (both legs) rupture of artery	Side splints; flexible position at first, then box, swing, &c.	U.	28 d.	⅜ in.	— —	Im.
41	20 y.	-	M	R	Comp'd comminuted; rupture of artery	Gutta percha; wired frags. together.	-	-	-	Died on 5th day.	-
42	31 y.	7 w.	M	R	Comp'd with fract. of femur same side.	Straight splint.	U.	-	¼ in.	— —	Im.
43	40 y.	-	M	R	Comp'd comminuted.	Box, cool water, &c.	N. U.	-	-	Gangrene; amputation on 13th day; death on 16th day.	-

TABLE XI.—FRACTURES OF THE FIBULA AND TIBIA (*Continued*).

Shaft. (*Middle Third.*) (*Continued.*)

No.	Age when it occurred.	Time since it occurred.	Sex.	Right or left side.	Character of the fracture.	Treatment.	Result.				
							United or not.	When united.	Amount of shortening.	Remarks.	Perfect or Imperfect.
44	32 y.	–	M	–	Comp'd comminuted.	Box, side splints, &c.	U.	–	¾ in.	Slightly bent at seat of fracture.	Im.
a	30 y.	3 y.	M	L	Transv.	Plaster of Paris.	U.	6 w.	No.	Reeder, Lacon, Ill.	P.
b	38 y.	3½ y.	M	L	Comp'd.	Box; st'ch bandage after 3 w.	U.	2 m.	⅜ in.	William Hamilton, Galesburg, Ill.	Im.
c	36 y.	4½ y.	M	R	Simple.	Starch bandage.	U.	6 w.	⅜ in.	Large callus. Wm. Hamilton.	Im.
d	23 y.	2 y.	M	R	Comp'd.	Box; st'ch bandage after 3 or 4 weeks.	U.	2 m.	⅜ in.	Slight forward projection; exfoliation. Wm. Hamilton.	Im.
e	37 y.	3 y.	M	R	Simple.	Starch bandage.	U.	5 w.	No.	Wm. Hamilton.	P.
f	15 y.	1 y.	F	L	Simple.	Lateral splints; Pott's position.	U.	1 m	¼ in.	Slight curvature forward and outward. Self.	Im.
g	36 y.	8 y.	M	L	Simple oblique.	Double inclined plane.	U.	3 m.	1 in.	Great deformity.	Im.
h	44 y.	1 y.	M	R	Simple oblique.	Tin spl'ts; Pott's position.	U.	23 d.	¼ in.	Partial anchylosis of ankle; no deform.	Im.
i	31 y.	19 y.	M	R	Comp'd.	Lateral splints.	U.	6 w.	¾ in.	Upper frag. overrides forward and inwards.	Im.
j	18 m.	7 y.	M	L	Simple.	Posterior gutter tin splint.	U.	25 d.	No.	No trace of fracture.	P.
k	49 y.	9 y.	M	R	Simple.	Box; pasteboard splints.	U.	2 m.	–	— —	–
l	40 y.	3 m.	M	R	Simple.	Box and plaster.	U.	6 w.	½ in.	Fenn. *Chicago Med. Jour.*, Oct., 1869.	Im.
m	23 y.	6 w.	M	R	Simple.	Plaster of Paris.	U.	6 w.	½ in.	Fenn. *Chicago Med. Jour.*, Oct., 1869.	Im.
n	28 y.	6 w.	F	L	Simple.	Plaster of Paris after 12 days.	U.	7 w.	No.	Fenn. *Chicago Med. Jour.*, Oct., 1869.	P.
o	22 y.	6 w.	M	R	Simple.	Plaster of Paris.	U.	5 w.	1 in.	Fenn. *Chicago Med. Jour.*, Oct., 1869.	Im.
p	42 y.	8 w.	M	L	Simple.	Plaster of Paris.	D. U. 52d day.	–	½ in.	Fenn. *Chicago Med. Jour.*, Oct., 1869.	Im.
q	35 y.	5 m.	M	L	Comp'd complicated.	Fracture box at first, then st'ch bandage.	N. U.	–	–	Double fracture of femur in same limb. Fall into a coal shaft 50 feet; case *h*, fracture of neck of femur extra-caps; amputation.	Im.

TABLE XI. — FRACTURES OF THE TIBIA AND FIBULA (*Continued*).

Shaft. (*Lower Third.*)

No.	Age when it occurred.	Time since it occurred.	Sex.	Right or left side.	Character of the fracture.	Treatment.	Result.				
							United or not.	When united.	Amount of shortening.	Remarks.	Perfect or Imperfect.
45	42 y.	24 y.	M	L	Simple, from musc'lar action, never displ'cd.	Carved splints.	U.	–	No.	—	P.
46	25 y.	4 m.	F	R	S., tibia ob. from musc'lar action, not much displ'cd.	Gutta percha splints, &c.	U.	–	No.	—	P.
47	14 y.	8 y.	M	R	Simple oblique.	—	U.	–	No.	—	P.
48	34 y.	1 y.	M	R	S., tibia transv. not displaced, up. end of fibula in place, low. end inclined to tibia.	Pasteb'd splints and rollers.	U.	–	No.	—	P.
49	44 y.	2 m.	M	R	S., tibia obliq'ly down & in, only slightly displ'cd.	Gutta percha and a pillow.	U.	–	No.	—	P.
50	14 y.	21 y.	M	L	Simple transv.	Tin splints.	U.	–	No.	—	P.
51	25 y.	32 d.	M	–	S., tibia ob., no displacement.	Starch bandage.	U.	28 d.	No.	—	P.
52	–	6 m.	M	–	Simple.	Side splints.	U.	–	No.	—	P.
53	15 y.	6 w.	M	–	Simple.	—	U.	–	No.	Slight outward projection of tibia at seat of fracture.	P.
54	7 y.	1 m.	F	–	Simple oblique.	Pasteb'd splints; dble. in. plane.	U.	28 d.	No.	—	P.
55	–	–	F	–	S., tibia transv.	Straw junks.	U.	–	No.	—	P.
56	17 y.	–	M	–	S., tibia oblique.	Gutta percha splints.	U.	–	No.	Slight bend of tibia at seat of fracture.	P.
57	6 y.	4 m.	M	–	Simple.	—	U.	–	No.	—	P.
58	40 y.	1 m.	M	L	S., tibia oblique, down & back.	Gutta percha; Pott's position, &c.	U.	26 d.	½ in.	Upper frag. of tibia in front.	Im.
59	26 y.	1 y.	M	L	Simple.	Simple; limb laid upon its back.	U.	–	½ in.	Upper frag. of tibia in front; heel fallen backwards and outwards; fibula inclined against tibia.	Im.

TABLE XI.—FRACTURES OF THE TIBIA AND FIBULA (*Continued*).

Shaft. (*Lower Third.*) (*Continued.*)

No.	Age when it occurred.	Time since it occurred.	Sex.	Right or left side.	Character of the fracture.	Treatment.	Result.				
							United or not.	When united.	Amount of shortening.	Remarks.	Perfect or Imperfect.
60	43 y.	2 y.	M	R	Simple; tibia oblique.	Side splints.	U.	–	1 in.	Upper frag. of tibia on front and inner side of lower.	Im.
61	33 y.	40 y.	F	L	Simple; tibia oblique.	—	U.	–	½ in.	Upper frag. of tibia on inner side of lower, foot inclin'd in, ankle stiff.	Im.
62	22 y.	10 y.	M	L	Simple; tibia oblique.	—	U.	–	½ in.	Slight projection at seat of fracture of tibia.	Im.
63	30 y.	–	M	R	Simple; oblique.	Side splints and Pott's position.	U.	35 d.	⅛ in.	Upper frag. of tibia on out-side of lower very slightly.	Im.
64	31 y.	2 m.	M	L	Simple.	Welch's double inclined plane, st'ch bandage.	U.	24 d.	¼ in.	Upper frag. of tibia slightly in front of lower.	Im.
65	15 y.	44 y.	M	L	Simple; tibia oblique.	—	U.	–	¼ in.	Upper frag. of tibia in front and inside of lower.	Im.
66	82 y.	1 y.	M	–	Simple.	—	U.	–	½ in.	— —	Im.
67	25 y.	2 m.	M	L	Simple.	Lateral splints, Pott's position.	U.	32 d.	1-6 in.	— —	–
68	38 y.	2 y.	M	–	Simple.	—	U.	–	1½ in.	— —	Im.
69	40 y.	2 m.	M	–	Simple.	—	U.	–	½ in.	Slightly bent at seat of fracture of tibia.	Im.
70	54 y.	–	F	–	Simple.	Lateral splints, limb laid upon its back.	U.	–	¼ in.	— —	Im.
71	43 y.	10 w.	M	–	Simple.	—	D. U.	–	½ in.	Callus not firm in ten weeks.	Im.
72	38 y.	30 y.	M	–	Simple.	—	U.	–	No.	After 30 years ankle stiff and tender and muscles atrophied; no shortening or deformity.	Im.
73	52 y.	25 y.	M	–	Simple.	—	U.	–	½ in.	Foot inclined out, ankle stiff, enl'gd, painful.	Im.
74	42 y.	8 y.	M	R	Simple.	—	U.	–	¼ in.	— —	Im.
75	50 y.	3 m.	M	L	Simple.	—	U.	–	¼ in.	— —	Im.
76	35 y.	6 w.	M	–	Simple.	—	U.		⅜ in.	Upper frag. of tibia on front and inner side of lower.	Im.
77	37 y.	25 y.	M	–	Simple.	—	U.	–	½ in.	Foot and lower part of leg inclined in.	Im.
78	40 y.	8 y.	M	R	Simple; tibia oblique.	Side splints, straight position on back.	U.	–	½ in.	Upper frag. of tibia on inside of lower; upper fragment of fibula falls back, much callus.	Im.
79	50 y.	18 y.	M	R	Simple; tibia oblique.	—	U.	–	No.	Lower part of leg inclined forwards and inwards.	Im.
80	85 y.	4 m.	M	L	Simple; tibia ob.	Double inclined plane.	U.	–	–	Precise result unknown.	–
81	49 y.	2 y.	M	L	Simple.	—	U.	–	¾ in.	Limb swollen after 2 years.	Im.
82	35 y.	6 w.	M	–	Simple; tibia ob.	Lateral splints.	U.	–	¾ in.	Upper frag. of tibia on inside of lower.	Im.

TABLE XI.—FRACTURES OF THE TIBIA AND FIBULA (*Continued*).

Shaft. (*Lower Third.*) (*Continued.*)

No.	Age when it occurred.	Time since it occurred.	Sex.	Right or left side.	Character of the fracture.	Treatment.	Result.				
							United or not.	When united.	Amount of shortening.	Remarks.	Perfect or Imperfect.
83	47 y.	7 m	M	R	Simple; tibia obliq'ly downwards and inwards.	—	D. U.	120 d.	⅔ in.	Upper frag. of tibia in front of lower; lower part of limb falls back; after 7 months it is swollen and patient unable to walk.	Im.
84	27 y.	6 w.	M	L	Simple; tibia oblique.	Straw side splints; double inclined plane.	U.	–	–	Precise result unknown.	–
85	30 y.	7 w.	M	R	Simple; tibia oblique.	Carved splint; laid limb on back.	U.	21 d.	in.	Slight bend at seat of fracture.	Im.
86	33 y.	2 y.	M	R	Simple; tibia transv.	Hutchinson's splint; Jarvis's adjustor.	U.	–	No.	Ulcer on heel; lower part of leg inclined in.	Im.
87	9 y.	1 y.	M	R	Comp'd comminuted.	Lateral splints. Pott's position.	U.	–	No.	Frag. of bone exfoliated after 3 m.	P.
88	11 y.	1 m.	M	R	Comp'd; frag. of tibia not much displc'd.	Pott's position, &c.	U.	28 d.	No.	— —	P.
89	3 y.	1 y.	M	R	Comp'd.	—	U.	–	No.	Upper frag. of tibia slightly displaced backwards; ulcer on heel from extensive laceration.	P.
90	32 y.	22 y.	M	–	Comp'd.	—	U.	–	No.	— —	P.
91	30 y.	–	M	–	Comp'd.	—	U.	–	in.	Upper frag. of tibia on front and outside of lower.	Im.
92	30 y.	29 y.	M	R	Comp'd; tibia oblique.	—	U.	–	¼ in.	Ankle occasionally painful after 29 years.	Im.
93	14 y.	1 y.	M	L	Comp'd; tibia oblique.	Double inclined plane; paste bandage, &c.	U.	36 d.	¼ in.	Upper frag. of tibia in front of lower.	Im
94	26 y.	5 m.	M	–	Comp'd.	—	U.	–	¾ in.	Small frag. of bone exfoliated.	Im.
95	26 y.	5 m.	M	R	Comp'd.	—	U.	–	½ in.	Lower part of limb falls back; ulcer over seat of frac. after 5 months.	Im.
96	24 y.	3 m.	M	L	Comp'd.	—	U.	–	–	Upper frag. of tibia in front of lower; lower part of limb falls back.	Im.
97	33 y.	1 y.	M	–	Comp'd; tibia oblique.	Double inclined plane with extension.	U.	–	½ in.	Ankle swollen and painful after one year.	Im
98	30 y.	3 y.	M	R	Comp'd.	—	U.	–	½ in.	Some projection of tibia at seat of fracture; ulcer at same point after 3 years.	Im.

TABLE XI.—FRACTURES OF THE TIBIA AND FIBULA (*Continued*).

Shaft. (*Lower Third.*) (*Continued.*)

No.	Age when it occurred.	Time since it occurred.	Sex.	Right or left side.	Character of the fracture.	Treatment.	Result.			Remarks.	Perfect or Imperfect.
							United or not.	When united.	Amount of shortening		
99	14 y.	7 y.	M	R	Comp'd.	Suspension in a box.	U.	–	1 in.	Ulcer healed after 8 years.	Im.
100	31 y.	15 y.	M	R	Comp'd; tibia oblique.	Hutchinson's splint, &c.	U.	–	½ in.	Ulcer on heel; slight lateral displacement of tibia.	Im.
101	0 y.	12 y.	M	L	Comp'd.	—	U.	–	No.	Abscess formed in tibia and amputation after 12 years.	Im.
102	32 y.	2 y.	M	R	Comp'd commi.	Box, paste bandage, &c.	D. U.	84 d.	¼ in.	Upper frag. of tibia on outs. of lower.	Im.
103	50 y.	–	M	R	Comp'd commi.	Swing splint, extension, &c.	U.	–	½ in.	Ulcer on heel; lower part of limb falls back.	Im.
104	39 y.	6 y.	M	L	Comp'd commi.	Box, &c.	U.	–	n.	Crooked; after 6 yrs. it is occasionally painful. Several frags. exfoliated.	Im.
105	23 y.	4 w.	M	L	Comp'd commi.; rupture of artery	Side splints, &c. (See case 40.)	U.	28 d.	¾ in.	— —	Im.
106	30 y.	1 y.	M	R	Comp'd commi. and complicated.	Paste bandage; double inclined plane; resect'n of projecting bone on 30th d.	U.	–	½ in.	Upper frag. of tibia in front of lower.	Im.
107	40 y.	–	M	–	–	—	N. U.	–	–	Amputation on 15th day.	Im.
108	5 y.	–	F	–	C. com. &c.	—	N. U.	–	–	Amputation on 34th day.	Im.
109	49 y.	–	M	L	Comp'd comminuted.	Double inclined plane; resect'n of bone on 19th day.	U.	–	1½ in.	Abscess of bone after several years.	Im.
a	68 y.	8 m.	F	R & L	Transv.	Plaster of Paris.	U.	12 y.	No.	Reeder, Lacon, Ill.	P.
b	25 y.	27 y.	M	R	Simple oblique.	Carved lateral splints; exten. st'ch bandage.	U.	6 m.	½ in.	Reeder; some deformity.	Im.
c	38 y.	3½ y.	M	R	Simple.	Box; starch bandage.	U.	–	No.	Some deformity. Wm. Hamilton.	Im.
d	45 y.	1 y.	M	R	Simple.	Starch bandage.	N. U.	–	–	Wm. Hamilton, consulting surgeon.	Im.
e	25 y.	3½ y.	M	R	Simple.	Starch bandage.	U.	6 w.	No.	Wm. Hamilton.	P.
f	35 y.	5 y.	F	R	Comp'd comminuted.	Short splints 10 days then st'ch bandage.	U.			Wm. Hamilton. Was twice sent for to amputate. Very useful limb.	Im.
g	32 y.	6 y.	M	R	Simple.	Starch bandage.	U.	5 w.	in.	No curvature or deformity. William Hamilton.	Im.
h	21 y.	15 y.	M	R	Comp'd complicated.	Simple dressing.	–	–	–	R. R. injury; died 10th day. Reece.	Im.
i	50 y.	3 y.	M	R	Comp'd.	Box; extension by weigh	–	–	–	Died 8th day; embolism pulmonary. Reece.	Im.

TABLE XI. — FRACTURES OF THE TIBIA AND FIBULA (*Continued*).

Shaft. (*Lower Third.*) (*Continued.*)

No.	Age when it occurred.	Time since it occurred.	Sex.	Right or left side.	Character of the fracture.	Treatment.	Result.				
							United or not.	When united.	Amount of shortening.	Remarks.	Perfect or Imperfect.
j	6 y.	7y.	M	R	Comminuted.	Salter's apparat.	U.	4 w.	None.	Reece. No deformity.	P.
k	51 y.	7 y.	M	R	Compound.	Splints 10 days, then starch.	U.	4 w.	None.	Reece. No deformity.	P.
l	50 y.	2 m.	M	R	Simple.	Starch bandage.	U.	–	¾ in.	Upper frag. projects in front of lower. Reece.	Im.
m	55 y.	8 y.	M	L	Simple.	Salter's apparat.	U.	5 w.	None.	Reece. No deformity.	P.
n	10 y.	5 y.	F	L	Simple.	—	U.	4 w.	None.	Reece. No deformity.	P.
o	36 y.	3 y.	M	L	Simple.	Salter's apparat.	U.	3 w.	None.	Reece. Sli't deform.	Im.
p	13 y.	7 y.	M	R	Simple.	Splints.	U.	3 w.	None.	Reece. No deformity.	P.
q	12 y.	2 y.	M	R	Simple.	Lateral splints.	–	3 w.	None.	Reece. No deformity.	P.
r	30 y.	13 y.	M	R	Compound.	McIntyre's apparatus.	–	–	–	Reece. Delirium Tremens, 3 days after injury.	Im.
s	16 y.	8 y.	M	L	Simple oblique.	Carved posterior splint with foot piece.	U.	6 w.	1¼ in.	Partial anchylosis; great deformity.	Im.
t	16 y.	2 y.	M	L	Simple oblique.	Lateral curved splints.	U.	–	⅛ in.	Tibia projects anteriorly, slightly.	Im.
u	57 y.	17 y.	M	R	Compound.	Boot leg.	U.	6 w.	¾ in.	Foot and lower part of leg incurved.	Im.
v	24 y.	14 y.	M	L	Compound.	Lateral splints.	U.	6 w.	None.	Anchylosis of ankle 4 years.	Im.
w	40 y.	8 y.	M	L	Simple.	Posterior splint. Double inclined plane.	U.	6 w.	⅛ in.	Upper frag. overrides.	Im.
x	49 y.	2 y.	M	L	Simple.	Lateral splints. Pott's position.	U.	1 m.	¼ in.	Upper frag. overrides in front.	Im.
y	17 y.	33 y.	M	L	Simple complic.	Lateral splints.	U.	1 m.	¼ in.	Anchylosis of hip.	Im.
z	3 y.	–	M	L	Complicated.	Plaster of Paris.	–	–	–	Death from gangrene 32 days.	Im.
i	28 y.	5 m.	F	R	Simple.	Not known.	N. U.	–	–	— —	
ii	40 y.	1 m.	F	–	Simple.	Box.	U.	1 m.	–	*Med. Times*, vol. ii., p. 169.	Im.
iii	23 y.	37 d.	M	R	Compound.	Fracture box.	U.	5 w.	–	Slight projection forward. Id.	Im.
iv	2 y.	–	M	–	Comp'd.	Amputation.	–	–	–	Flaps sloughed. Id.	Im.
v	25 y.	35 y.	M	R	Simple.	Unknown.	U.	–	½ in.	See remarks. Hallam & Barnes *v.* Means.	Im.
vi	21 y.	9 w.	M	R	Simple.	Lateral splints, extension, &c.	D. U.	–	½ in.	See case of Harper, ch. on Skill in Diagnosis.	Im.
vii	11 y.	4 y.	M	L	Simple.	Lateral splints, extension by weight, &c.	U.	1 m.	None.	Leg bowed out.	Im.
viii	65 y.	–	F	L	Simple complic.	Died next day.	–	–	–	Pepper. *Am. Jour. Med. Sci.*, Oct., 1866.	–
ix	30 y.	1 m	M	L	Simple.	Starch bandage.	U.	1 m.	⅜ in.	Very slight incurvation.	Im.
x	30 y.	9 m.	M	R	Simple.	Starch bandage.	U.	5 w.	½ in.	Some callus remains. Aldrich Gilson, Ill.	Im.
xi	64 y.	5 m.	M	L	Simple.	Starch bandage.	U.	7 w.	¼ in.	Limb only comparatively useful. Aldrich Gilson, Ill.	Im.
xii	40 y.	15 w.	F	R	Simple.	—	N. U.	–	–	*Med. Times*, vol. iii. p. 819.	Im.

TABLE XI.—FRACTURES OF THE TIBIA AND FIBULA (*Continued*).

Malleolus Internus and Fibula above Ankle-joint. (*Lower Third.*) (*Continued.*)

No.	Age when it occurred.	Time since it occurred.	Sex.	Right or left side	Character of the fracture.	Treatment.	Result.				
							United or not.	When united.	Amount of shortening.	Remarks.	Perfect or Imperfect.
110	51 y.	–	M	–	Simple; fibula broken 3 in. above lower end.	Side splints, &c.	U.	–	None.	Lower frag. of fibula against tibia.	Im.
111	–	–	M	–	S. Fibula broken a little above ankle.	—	–	–	None.	— —	P.
112	35 y.	1 y.	M	L	S. (both legs broken.)	Double inclined plane, &c.	U.	–	None.	— —	P.
113	59 y.	9 m	F	R	S. fibula broken 3 in. above lower end.	Side splints, &c.	U.	–	None.	Mal. int. displaced down; fibula against tibia; ankle some stiff.	Im.
114	3 y.	30 y.	M	R	S. fibula broken 4 inches above lower end.	—	U.	–	None.	Limb atrophied after 30 y., and tender about the ankle; neither short, or deformed.	Im.
115	27 y.	1 y.	M	–	S. fibula 4 inches above lower end.	—	U.	–	None.	After 1 y., motions of joint limited; tibia unreduced; frag. of fibula falls against tibia; prosecution.	Im.
116	31 y.	8 y.	M	L	S. fibula 4 inches above lower end.	Dupuytren's splint, &c.	U.	–	None.	Tibia unreduced; frag. of fibula falls against tibia, &c.	Im.
117	7 y.	–	M	–	S. 2 in. above lower end fibula.	Splints, &c.	U.	–	None.	— —	–
118	50 y.	18 m.	M	R	S. fibula 4 in. above lower end.	Splints, &c.	U.	–	None.	Foot inclines out; tibia projects on inside; frag. of fibula against tibia.	Im.
119	37 y.	–	F	–	S. fibula 3½ in. ab. lower end.	Dupuytren's splint, &c.	U.	19 d.	None.	Up. frag. of fibula falls towards tibia.	P.
120	32 y.	4 m.	M	R	Comminuted of tibia; fibula 2 in. ab. ankle.	—	U.	–	None.	Tibia displaced forwards and inwards; frag. of fibula falls against tibia; ulcer on heel.	Im.

TABLE XI.—FRACTURES OF THE TIBIA AND FIBULA
(*Continued.*)

Malleolus Internus and Externus. (*Lower Third.*)

No.	Age when it occurred.	Time since it occurred.	Sex.	Right or left side.	Character of the fracture.	Treatment.	Result.				
							United or not.	When united.	Amount of shortening.	Remarks.	Perfect or Imperfect.
121	35 y.	–	M	L	Simple.	—	U.	–	None.	— —	–

Not broken in the same Divisions.

122	23 y.	7 w.	M	R	Simple T. in U. ⅓ Fib. in L. ⅓.	Splints, paste, &c.	U.	–	None.	— —	P.
123	33 y.	1 y.	M	R	Compound T. in L. ⅓ F. in U. ⅓.	Side splints; double inclined plane, &c.	U.	–	1¼ in.	Ankle stiff, &c.	Im.

TABLE A.

Dr. Frederick E. Hyde, of New York, published in the New York Med. Jour., October, 1874, a tabulated statement of 308 Cases of Fracture of the Femur, treated at Bellevue Hospital, New York city, from 1865 to 1873 inclusive. The surgeons in charge during this time were Drs. Crane, Goulay, Hamilton, Markoe, Mott, Sands, Sayre, Smith, and Wood. These surgeons, it must be remembered, received their hospital appointments from their known skill in surgery. Further, they were usually, if not always, able to command skilled assistants. Of this number, no mention is made in the Hospital Records, in respect to length, in 197 cases. Number of cases without shortening, 19. Number of cases in which shortening occurred, 92. Average shortening, *excluding* perfect cases, in eighths of inches, 5.7, or about ¾ of an inch. Average shortening, *including* perfect cases, in eighths of inches, 4.3, or about ½ an inch.

In the Medical Record for July 31, 1875, Dr. Hyde has extended his tables so as to include 14 more cases. In the 322 cases there were 8 cases of non-union. The ages of the patients ranged from two years to ninety years.

His conclusions, in respect to shortening, and in this he will be corroborated by practical surgeons everywhere, not only in fractures of the femur, but in other fractures also, are, that the best results are obtained in patients under ten years of age, the average shortening, excluding cases not shortened, being ½ an inch, and *including* cases not shortened ⅜ of an inch. The worst results are, according to his tables, found in persons between sixty and seventy years of age; in one only was no shortening found, excluding which case, the shortening being 1 inch, and including it ⅞ of an inch. He remarks further: "Between these extremes we notice that the cases in which there is no shortening gradually decrease in numbers as years advance."

In respect to splints, he says: "The time the splint was on, or the time required for union of the fracture, is in the first decade, about 4½ weeks; in the second decade, about 6 weeks; in the third decade, 5½ weeks; in the fourth decade, 6½ weeks; in the fifth decade 6 weeks; in the sixth decade, 9½ weeks, — one case having the splints applied for 102 days, makes this average high; in the seventh decade, 7 weeks; in the eighth and ninth decades there is no record of this point. We find in each decade the usual 3 or 4 weeks of convalescence additional to complete the period in hospital."

Dr. Hyde's Tables, and paper accompanying, throw a great deal of light on these several points, and several others which I could not do justice to in a simple analysis, but he says little or nothing about deformity and loss of function, the very points that are usually made in suits for alleged malpractice. But this is a point upon which hospitals as well as individual surgeons are tender. The profession is under obligation to Dr. Hyde for his valuable papers; but in the language of the motto Dr. Hamilton selected for the first chapter of his Report on Deformities, "That a 'cure' took

place we do not doubt, but the information we should most desire would be on the length of the cured limb, and a few other matters of that sort." The first Dr. Hyde has given us; "the few other matters" is what surgeons most earnestly desire.[1]

Since writing the foregoing, Dr. Hyde has favored me with the following statement:

"In looking over my transcript of records, I find only 12 cases in which any reference is made to anchylosis, from "a little stiffness of the knee," to "very little motion at the knee." In regard to deformity, I find also 12 cases; all of these but five simply have recorded "some deformity," or "deformity." The five exceptions are recorded respectively as "considerable angular deformity, lower fragment adducted." "Upper fragment slightly lifted." "Slight eversion of foot." "Some bowing outwards." "Bone was curved backwards."

The reader is referred to his valuable paper for a more detailed statement and analysis. Through his kindness I am permitted to present his tables.

[1] In 1857, Holthouse, of London, examined fifty cases of fracture of the femur. Of this number forty-one were males and nine females. Ages ranged from two years to eighty-four. Thirty were adults and twenty children. Only fifteen escaped deformity, and of these three were children. Holmes's Syst. of Surg. vol. ii.

TABLE A, HAVING REFERENCE TO THE POINT OF FRACTURE.

Point of Fracture.	No. of Cases.	Sex. Female.	Sex. Male.	Character of Fracture. Simple.	Simp. Comm.	Simp. Compl.	Compound.	Comp. Comm.	Comp. Compl.	Not stated.	Left.	Right.	Not stated.	Result as to Cure. Union.	Non-union.	Deaths.	Result not stated.	No. of Days Splint Remained on. Cases noted.	Shortest time.	Longest time.	Average time.	Shortening. Not shortened.	Shortened.	Least shortening.	Most shortening.	Average shortening, *excluding cases not shortened*, in eighths of an inch.	Average shortening, *including cases not shortened*, in eighths of an inch.
																										Eighths.	*Eighths.*
Neck—Intra-capsular....	14	10	4	9	–	1	–	–	–	4	5	3	6	3	4	2	5	1	41	41	41	–	2	½ in.	½ in.	4. or about ½ in.	4. or about ½ in.
" —Extra capsular...	17	6	11	15	–	1	–	–	–	1	3	2	12	6	–	2	9	–	29	57	43	–	5	⅛ in.	1 in.	6.2 " ⅛ in.	6.2 " ⅛ in.
" —Not Classified	30	6	24	23	–	1	–	–	–	6	9	9	12	13	2	4	11	2	29	57	43	–	10	¼ in.	1½ in.	5.4 " ⅛ in.	5.4 " ⅛ in.
Total Fractures of Neck..	61	22	39	47	–	3	–	–	–	11	17	14	30	22	6	8	25	3	29	57	42½	–	17	¼ in.	1½ in.	5.47 or about ⅜ in.	5.47 or about ⅜ in.
Shaft—Upper Third.....	34	7	27	18	–	2	2	–	2	–	9	7	18	20	–	3	11	6	30	102	52 5/6	3	12	¼ in.	3 ins.	6.8 or about ⅞ in.	5.5 or about ¾ in.
" —Middle Third	168	[1]28	136	130	1	13	[2]17	4	1	–	43	46	79	87	–	21	60	26	25	54	38¼	14	54	⅛ in.	1¾ in.	4.7 " ⅝ in.	3.9 " ½ in.
" —Lower Third.....	32	[1]6	25	15	2	1	[4]2	2	1	6	[4]8	7	18	11	–	4	17	4	30	45	39	1	9	⅛ in.	1 in.	4.8 " ⅝ in.	4.4 " ½ in.
" —Point not indicated.....	20	[1]5	13	5	–	–	3	–	[3]1	11	[4]2	5	14	8	2	3	7	1	60	60	60	–	6	¼ in.	1½ in.	7. " ⅞ in.	7. " ⅞ in.
Total Fractures of Shaft.	254	46	201	168	3	16	24	6	5	26	62	65	129	126	2	31	95	37	25	102	41¼	18	81	⅛ in.	3 ins.	5.37 or about ⅜ in.	4.39 or about ½ in.
Condyles	7	1	6	3	–	2	–	–	–	1	2	–	5	2	–	1	4	–	–	–	–	–	–	—	—	—	—
Summary of Totals and Condyles	322	69	246	218	3	21	24	6	5	38	81	79	164	150	8	40	124	40	25	102	41 3/10	18	98	⅛ in.	3 ins.	5.38 or about ⅜ in.	4.55 or about ⅜ in.

In addition to the above there is 1 case of simple comminuted and complicated fracture of the lower third; 2 cases of compound comminuted and complicated fracture of the middle third; and 4 comminuted, other characters of which not stated, 1 in the upper third, 2 in the lower third, and 1 of the condyles.

[1] Sex not recorded in four cases of middle third, one case of lower third, and two cases of point fracture not indicated.
[2] One of these cases a gunshot wound.
[3] This case had a simple fracture of the other thigh also, with the additional complication of fracture of skull.
[4] One of these cases was a double fracture.

TABLE B, HAVING REFERENCE TO THE CHARACTER OF THE FRACTURE.

Character of Fracture.	No. of Cases.	Non-union. No. of Cases.	Non-union. Per cent.	Death. No. of Cases.	Death. Per cent.	Time the splint was on. No. of Cases.	Time the splint was on. Average No. of Days.	Time patients were in hospital. No of Cases.	Time patients were in hospital. Average No. of Days.	Shortening. Not shortened.	Shortening. Shortened.	Shortening. Average, excluding not shortened, in eighths of an inch.	Shortening. Average including, not shortened, in eighths of an inch.
Simple	218	6	2.75	7	3.21	35	41 3/5	38	67 1/4	15	74	5.09 or about 5/8	4.23 or 1/2
Simple Comminuted	3	–	–	–	–	–	–	–	–	–	1	6. " 3/4	6. " 3/4
Simple Complicated	21	–	–	10	47.61	1	35	4	70 1/2	1	3	10. " 1 1/4	7.5 " 1
Simple Comm. Compl.	1	–	–	1	100.	–	–	–	–	–	–	——	——
Total, Simple, &c	243	6	2.46	18	7.4	36	41 2/5	42	67 1/2	16	78	5.29 or 5/8	4.39 or 1/2
Compound	24	1	4.16	11	45.83	1	43	1	82	1	4	3.75 or 3/4	3. or 3/8
Comp. Comminuted	6	–	–	2	33.33	–	–	–	–	–	2	7. " 7/8	7. " 7/8
Comp. Complicated	5	–	–	2	40.	1	30	–	–	–	–	——	——
Comp. Comm. Compl.	2	–	–	1	50.	–	–	–	–	–	–	——	——
Total, Compound, &c.	37	1	2.70	16	43.23	2	36 1/2	1	82	1	6	4.83 or	4.14 or 1/2
Comminuted	4	–	–	–	–	–	–	–	–	–	1	4. or 1/2	4. or 1/2
Not stated	38	1	2.61	6	15.78	2	45	3	[1]158	1	13	6.30 " 1/4	5.85 " 1/4
Summary of Simple, Comp., Comm., and not stated	322	8	2.48	40	12.42	40	41 3/10	46	73 7/10	18	98	5.38 or 5/8	4.55 or 1/2

[1] One case in hospital 358 days makes this average high.

TABLE C, HAVING REFERENCE TO AGE.

Age in Years.	No of Cases.	Sex.		Point of Fracture.						Character of Fracture.			Result as to Cure.				Time the splint remained on.		Time the patient was in hospital.		Shortening, in eighths of an inch.			
		Female.	Male.	Neck.	Upper Third.	Middle Third.	Lower Third.	Condyles.	Not stated.	Simple.	Compound.	Not stated.	Union.	Non-union.	Deaths.	Result not stated.	No. of cases recorded.	Average No. of days.	No. of cases recorded.	Average No. of days.	No. of cases not shortened.	No. of cases shortened.	Average excluding not shortened.	Average including not shortened.
2.....	1	1	–	–	–	1	–	–	–	1	–	–	1	–	–	–	–	–	–	–	–	1	12.	12.
2½....	1	1	–	–	–	1	–	–	–	1	–	–	1	–	–	–	–	–	–	–	–	1	2.	2.
3.....	3	2	1	–	–	3	–	–	–	3	–	–	2	–	–	1	2	37½	–	–	–	2	4.5	4.5
3½....	2	–	2	–	–	2	–	–	–	2	–	–	2	–	–	–	1	29	–	–	–	2	3.	3.
4.....	3	–	3	–	1	2	–	–	–	1	1	–	2	–	1	–	1	30	–	–	1	1	4.	2.
5.....	4	1	3	–	–	4	–	–	–	4	–	–	3	–	–	1	1	27	1	49	2	1	4.	1.33
6.....	10	1	8	–	–	10	–	–	–	9	1	–	7	–	2	1	1	38	3	59⅓	3	1	4.	1.
7.....	5	2	3	–	1	3	1	–	–	5	–	–	2	–	–	3	2	34	2	45	1	–	–	–
8.....	6	–	5	–	1	5	–	–	–	4	–	–	5	–	–	1	2	34½	2	50½	–	5	2.2	2.2
9.....	5	2	3	–	1	4	–	–	–	4	1	–	4	–	1	–	3	34⅔	1	73	–	3	5.33	5.33
9½....	1	–	1	–	–	–	1	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–
10.....	10	2	8	–	–	9	1	–	–	6	2	–	7	–	1	2	–	–	1	63	–	6	4.16	4.16
Totals..	51	12	37	–	4	44	3	–	–	40	5	–	36	–	5	10	13	31	10	55½	7	23	4.04	3.1

NOTE. — In two cases, one of 6 and the other of 8 years, the sex is not recorded. In addition to the simple and compound fractures given above, there are the following: one case of simple comminuted at 9½ years; two cases of simple complicated, one at 8, and the other at 10 years; two cases of compound comminuted, one at 8, and the other at 10 years; and one case of compound, comminuted and complicated, at 4 years of age.

11.....	7	1	6	–	1	6	–	–	–	6	–	–	3	–	–	4	1	40	–	–	1	2	5.	3.33
12.....	2	–	2	–	–	2	–	–	–	2	–	–	2	–	–	–	1	38	1	47	1	1	6.	3.
13.....	4	–	4	–	–	4	–	–	–	3	–	–	–	–	1	3	–	–	–	–	–	–	–	–
14.....	5	–	5	–	1	4	–	–	–	2	–	1	2	–	–	3	–	–	–	–	–	2	5.	5.
15.....	3	–	3	–	–	1	2	–	–	1	–	–	2	–	–	1	1	45	2	61½	1	1	1.	0.5
16.....	4	–	3	–	–	4	–	–	–	3	–	–	3	–	–	1	–	–	1	57	–	2	5.	5.
17.....	4	–	4	–	–	4	–	–	–	3	–	–	–	–	–	4	–	–	–	–	–	–	–	–
18.....	2	–	2	–	–	2	–	–	–	1	–	–	1	–	–	1	1	51	–	–	–	1	6.	6.
19.....	1	–	1	1	–	–	–	–	–	1	–	–	–	–	–	1	–	–	–	–	–	–	–	–
20.....	5	1	4	1	–	2	2	–	–	2	–	–	5	–	–	–	–	–	1	88	–	4	6.2	6.2
Totals..	37	2	34	2	2	29	4	–	–	24	1	1	18	–	1	18	4	43½	5	63	3	13	5.23	4.25

NOTE. — One case of 16 years, sex not recorded. One extra-capsular fracture of the neck at 20 years. One simple comminuted fracture at 14 years, and one at 20 years. One simple complicated at 11 years, one at 13, two at 15, and one at 16 years. One gunshot fracture at 18 years. One compound comminuted at 17 years, and one at 20 years. One comminuted, other characters not stated, at 20 years.

21.....	2	–	2	–	–	2	–	–	–	2	–	–	2	–	–	–	1	42	1	58	–	–	–	–
22.....	2	–	2	–	–	2	–	–	–	1	1	–	–	–	–	2	1	43	–	–	–	–	–	–
23.....	6	–	6	–	–	6	–	–	–	5	–	–	3	–	–	3	–	–	1	76	2	–	–	–
24.....	6	3	3	–	3	3	–	–	–	4	–	2	3	–	1	2	–	–	–	–	–	4	6.5	6.5
25.....	2	–	2	1	–	–	–	1	–	2	–	–	1	–	–	1	–	–	–	–	–	–	–	–
26.....	5	–	5	–	1	3	–	1	–	4	–	1	2	–	–	3	–	–	2	77½	–	1	10	10.
27.....	7	–	7	–	1	4	2	–	–	4	1	2	4	–	1	2	2	42½	1	67	–	3	4.33	4 33
28.....	9	–	7	1	–	5	–	2	1	5	3	–	4	–	2	3	1	40	–	–	1	2	3.	2.
29.....	3	–	3	2	–	1	–	–	–	3	–	–	1	1	–	1	1	29	1	70	–	1	6.	6.
30.....	8	–	8	1	1	5	1	–	–	5	1	–	3	–	2	3	1	35	–	–	–	3	3.	3.
Totals..	50	3	45	5	6	31	3	4	1	35	6	5	23	1	6	20	7	39⅙	6	71	3	14	4.78	3.94

NOTE. — Sex not recorded in two cases 28 years of age. One extra-capsular at 25 years, and one at 30 years of age. One simple complicated at 23 years, one at 28, and one at 30 years. One compound complicated at 30 years of age.

TABLE C, HAVING REFERENCE TO AGE (*Continued*).

Age in Years.	No. of Cases.	Sex.		Point of Fracture.						Character of Fracture.			Result as to Cure.				Time the splint remained on.		Time the patient was in hospital.		Shortening, in eighths of an inch.			
		Female.	Male.	Neck.	Upper Third.	Middle Third.	Lower Third.	Condyles.	Not stated.	Simple.	Compound.	Not stated.	Union.	Non-union.	Deaths.	Not stated.	No. of cases recorded.	Average No. of days.	No. of cases recorded.	Average No. of days.	Not shortened.	Shortened.	Average excluding not shortened.	Average including not shortened.
31.....	1	–	1	–	–	–	1	–	–	1	–	–	1	–	–	–	–	–	–	–	1	–	–	–
32.....	5	–	5	1	–	1	2	–	1	2	–	–	1	–	2	2	–	–	–	–	–	1	4.	4.
33.....	3	–	3	–	1	2	–	–	–	3	–	–	3	–	–	–	1	54	1	109	1	2	5 5	3.66
34.....	1	–	1	–	–	1	–	–	–	1	–	–	1	–	–	–	1	35	1	55	–	–	–	–
35.....	12	3	9	1	1	7	1	–	2	7	2	–	5	–	4	3	1	54	3	82 3/3	–	4	6.25	6.25
36.....	5	–	5	1	–	2	1	1	–	2	1	–	2	–	2	1	–	–	1	82	–	1	10.	10.
37.....	5	–	5	–	1	2	1	–	1	3	1	1	1	1	–	3	–	–	–	–	–	1	2.	2.
38.....	3	–	3	–	–	1	2	–	–	3	–	–	2	–	–	1	2	37½	2	53½	–	1	6.	6.
39.....	5	2	3	2	–	3	–	–	–	4	–	–	1	1	–	3	–	–	1	59	–	1	4.	4.
40.....	17	3	14	4	2	7	2	–	2	11	1	4	6	–	1	10	2	51½	5	92 2/5	–	3	6 66	6.66
Totals..	57	8	49	9	5	26	10	1	6	37	5	5	23	2	9	23	7	454 4/7	14	801 1/5	2	14	5.85	5.12

NOTE. — Included in fractures of the neck, are: 1 intra-capsular at 39 years, and 5 extra-capsular, — 1 at 32, and 4 at 40 years. In addition to the simple and compound, there are: 1 simple comminuted and complicated at 36 years; 5 simple complicated, — 1 at 32, 3 at 35, and 1 at 36 years; 1 compound comminuted at 32 years; 1 compound comminuted and complicated at 39 years; 2 compound complicated, — 1 at 32, and 1 at 40 years.

42.....	2	–	2	–	–	1	–	–	1	1	–	1	2	–	–	–	–	–	1	57	–	1	6.	6.
43.....	1	–	1	–	–	–	1	–	–	1	–	–	1	–	–	–	1	44	1	49	–	1	1.	1.
44.....	2	1	1	–	2	–	–	–	–	1	–	–	1	–	–	1	1	30	–	–	–	–	–	–
45.....	11	3	8	3	–	6	1	–	1	8	1	2	5	–	–	6	1	45	1	358	–	5	7.6	7 6
46.....	2	1	–	–	–	1	–	–	1	1	1	–	–	–	1	1	–	–	–	–	–	–	–	–
47.....	3	2	1	–	1	1	1	–	–	2	–	–	–	–	1	2	–	–	–	–	–	–	–	–
48.....	4	1	3	1	–	2	–	–	1	2	1	1	2	–	1	1	–	–	–	–	–	1	12.	12.
49.....	3	–	3	–	–	1	–	1	1	1	–	1	2	–	1	–	–	–	1	65	–	1	8.	8.
50.....	15	7	8	4	–	7	2	1	1	13	–	1	8	1	1	5	2	49	3	64	1	5	7.4	6.16
Totals.	43	15	27	8	3	19	5	2	6	30	3	6	21	1	5	16	5	43 2/5	7	103	1	14	7.28	6.8

NOTE. — Included in fractures of the neck, there are: 2 intra-capsular, — 1 at 48, and 1 at 50 years; and 3 extra-capsular, — 2 at 45, and 1 at 50 years. In addition to simple and compound: 1 simple complicated at 49 years; 1 compound complicated at 44 years; 2 comminuted, other characters not stated, 1 at 47, and 1 at 50 years. One case at 46 years, sex not recorded.

51.....	2	1	1	–	2	–	–	–	–	1	–	1	1	–	–	1	1	102	1	104	–	1	8.	8.
52.....	4	–	4	1	–	1	2	–	–	1	1	1	2	–	1	1	–	–	–	–	–	2	5	5.
54.....	1	–	1	–	–	1	–	–	–	1	–	–	1	–	–	–	1	44	–	–	–	1	1.	1.
55.....	5	2	2	1	1	–	2	–	1	2	1	2	–	1	2	2	–	–	1	63	–	–	–	–
56.....	2	1	1	2	–	–	–	–	–	2	–	–	2	–	–	–	–	–	2	71½	–	1	8.	8.
57.....	1	–	1	–	–	1	–	–	–	–	–	–	1	–	–	–	1	35	–	–	–	–	–	–
58.....	3	–	3	1	–	1	1	–	–	2	–	1	2	–	–	1	–	–	–	–	–	2	4.	4.
59.....	4	–	4	–	2	2	–	–	–	4	–	–	1	–	–	3	–	–	1	75	–	1	12.	12.
60.....	18	6	12	9	2	5	2	–	–	13	–	5	6	1	1	10	–	–	4	88	1	3	4.66	3.5
Totals.	40	10	29	14	7	11	7	–	1	26	2	10	16	2	4	18	3	67	9	818/9	1	11	5.54	5.0

NOTE. — One case, in which sex is not recorded, at 55 years; intra-capsular fractures, 3, — 1 at 55, and 2 at 60 years; extra-capsular, 1 at — years; simple complicated, 1 at 57 years; comminuted, other characters not mentioned, 1 at 52 years.

TABLE C, HAVING REFERENCE TO AGE (*Continued*)

Age in Years.	No. of Cases.	Sex.		Point of Fracture.						Character of Fracture.			Result as to Cure.				Time the splint remained on.		Time the patient was in hospital.		Shortening, in eighths of an inch.			
		Female.	Male.	Neck.	Upper Third.	Middle Third.	Lower Third.	Condyles.	Not stated.	Simple.	Compound.	Not stated.	Union	Non-union.	Deaths.	Not stated.	No. of cases recorded.	Average No. of days.	No. of cases recorded.	Average No. of days.	Not shortened.	Shortened.	Average excluding not shortened.	Average including not shortened.
61.....	1	–	1	1	–	–	–	–	–	1	–	–	–	–	–	1	–	–	–	–	–	–	–	–
62.....	4	–	4	4	–	–	–	–	–	3	–	1	2	–	1	1	–	–	2	104	–	2	7.	7.
63.....	2	–	2	1	1	–	–	–	–	–	–	1	1	–	1	–	–	–	1	101	–	1	24.	24.
64.....	2	1	1	1	1	–	–	–	–	1	–	1	–	–	–	2	–	–	1	103	–	–	–	–
65.....	11	5	6	5	1	2	–	–	3	6	1	3	4	1	1	5	1	49	2	66½	–	2	4.	4.
67.....	2	–	2	1	–	1	–	–	–	1	–	1	1	–	–	1	–	–	1	49	–	1	4.	4.
68.....	1	1	–	–	–	–	–	–	1	1	–	–	–	–	–	1	–	–	–	–	–	–	–	–
70.....	5	5	–	2	2	1	–	–	–	3	–	2	2	–	–	3	–	–	1	21	1	–	–	–
Totals.	28	12	16	15	5	4	–	–	4	16	1	9	10	1	3	14	1	49	8	63⅞	1	6	8.33	7.14

NOTE. — Intra-capsular fractures, 5, — 1 at 62, 1 at 64, 2 at 65, and 1 at 67 years; extra-capsular, 4. — 1 at 62, 1 at 63, 1 at 65, and 1 at 70 years. In addition to simple and compound: — simple complicated, 1 at 63 years; compound complicated, 1 at 65 years.

72.....	2	–	2	1	1	–	–	–	–	1	–	1	–	–	1	1	–	–	–	–	–	–	–	–
73.....	1	1	–	1	–	–	–	–	–	1	–	–	–	–	–	1	–	–	–	–	–	–	–	–
74.....	2	1	1	1	1	–	–	–	–	2	–	–	1	1	–	–	–	–	2	45	–	1	2.	2.
76.....	1	–	1	1	–	–	–	–	–	–	–	1	–	–	1	–	–	–	–	–	–	–	–	–
77.....	1	1	–	1	–	–	–	–	–	1	–	–	1	–	–	–	–	–	–	–	–	1	8.	8.
79.....	2	2	–	2	–	–	–	–	–	–	–	–	–	–	2	–	–	–	–	–	–	–	–	–
Totals.	9	5	4	7	2	–	–	–	–	5	–	2	2	1	4	2	–	–	2	45	–	2	5.	5.

NOTE. — Included in fractures of the neck are: 3 intra-capsular, at 73, 74, and 79 years respectively; 1 extra-capsular at 79 years. There are 2 simple complicated fractures at 79 years.

85.....	1	1	–	1	–	–	–	–	–	1	–	–	–	–	–	1	–	–	–	–	–	–	–	–
87.....	1	1	–	–	–	1	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–
90.....	1	–	1	–	–	1	–	–	–	–	–	–	–	–	1	–	–	–	–	–	–	–	–	–
Totals.	3	2	1	1	–	2	–	–	–	1	–	–	–	–	2	1	–	–	–	–	–	–	–	–

NOTE. — In addition to the simple fracture there are: 1 simple complicated at 87 years, and 1 compound comminuted at 90 years.

There are four cases recorded in which the age is not stated — 1 female and 3 male; 2 fractures at the middle third, and 2 point not stated; all were simple. Union was recorded in 1 case; death in 1, and in two cases result not stated. Shortening recorded in 1 case of 2 eighths.

PRIMARY "IMMOVABLE MOVABLE" DRESSINGS.

(*Starch bandage*, Seutin, 1834; *Dextrine bandage*, Velpeau, 1837; *Plaster of Paris bandage*, Mathiesen 1852.)

In late trials for Malpractice we begin to see references made to Plaster of Paris, the successor of the starch and dextrine dressings, used as early as 1834, and which have been held in more or less favor ever since. We hear in connection with these suits such remarks as these: "I think Plaster of Paris would have given a better result;" "Plaster of Paris is my hobby;" "Plaster of Paris is the best form of dressing," &c., &c.

Notable among surgeons, whose opinions have great weight in the profession Professor L. A. Sayre extols it highly, and through his courtesy I am permitted to present his report in full, accompanied by the tables prepared by Dr. Van Wagenen.

I have omitted from the tables the record of fractures of os calcis, metacarpal and metatarsal bones, ribs, rupture of ligaments and tables of "Averages." The figures under "number of splints" indicate the first, second, and third applications of the plaster. The dates of these applications are also omitted.

In Professor Sayre's hands good results would follow, perhaps, any form of dressing; but it must be remembered he is now writing at the close of a long hospital practice, and is always able to command skilled assistance or all the mechanical paraphernalia pertaining to a hospital, while the "ordinary" surgeon, be his skill what it may, has to depend upon his own resources entirely, fortunate if he can have one or two *intelligent friends* present to witness what he does and what he does not do, and to hear his reasons for commissions and omissions.

Table B is Professor Sayre's Report to the American Medical Association, published in the Transactions for 1874, and is here presented in full.

Table C is essentially the one accompanying Professor Hamilton's paper on "The Treatment of Fractures of the Femur by Immovable Apparatus," published in the New York Med. Jour. for Aug. 1874.

Table D is compiled from the same paper, and shows result of treatment without Plaster of Paris.

The application of these forms of primary dressing requires large judgment, inasmuch as it is likely to be followed by the same bad results that so frequently follow the use of the "primary" or "initial" bandage. It is not yet the *sine qua non* so long and so anxiously looked for by surgeons in the treatment of fractures. The other forms of the so called "immovable" dressing are just as objectionable, and for the same reasons. As a secondary dressing, after the inflammatory dangers have passed, and as a dressing for compound fractures, it is highly satisfactory; and for hospital practice where it can be every few minutes under the eye of the house surgeon, or of nurses familiar with the care of these injuries, it may be followed by good results. The surgeon who applies it to his patient ten or fifteen miles away, applies it at a great peril to his patient and — himself.

Dr. Bryant (Med. Record, Sept. 15, 1871) says: "In compound fractures it is *equal*, if not superior, to any other kind of dressing." He says further: "You are first to consider the amount of swelling in, or liable to occur in, the limb. . . . . If then little or no swelling exists or is liable to occur, apply the splint (Plaster of Paris) at once; but if the limb is much swollen, or in danger of becoming so, apply Buck's Extension, conjoined with cooling lotions, to the part injured. The safer method is, in all cases, to treat in this manner until the swelling disappears."

Dr. S. B. St. John, of New York, in a paper published in Am. Jour. Med. Sci., July, 1872, gives as its *special advantages*, "Perfect coaptation to irregularities of the limb, and as result of this: Little tendency to displacement of splints; complete fixation of fragments; no injurious pressure over prominences; uniform compression; giving less trouble to

surgeon; freedom of patient to go on crutches or otherwise; less irritation; less extravasation of blood; less swelling; less liability of excoriation; muscular rest; diminution of spasm, thus removing one cause of displacement; preventing swelling and lessening it when it exists." See his valuable paper for shortening. Like so many others, he says little or nothing about *loss of function* and *deformity*. The advantages he presents are highly desirable, but the records of gangrene presented in the same connection militate, somewhat, against his conclusions.

The application of this form of splint is certainly not less trouble to the surgeon, for in many cases it seems necessary to apply it three or four times. According to Prof. Sayre's Tables it had frequently to be applied the third time; but trouble to the surgeon, however much it should be guarded against, is a secondary matter; a good result to the patient is the first thing to be looked after. Again, anæsthetics were frequently used in the cases recorded in the Bellevue Hospital Tables. This requires the assumption on the part of the surgeon of another responsibility, which is a country practice is not to be recklessly entered upon without skilled assistants, and these are an impossibility in such a practice.

Dr. Sands, New York Med. Jour., June, 1871, extols the plaster dressing, but his tables do not show entire freedom from shortening and deformity, any more than the rest.

TABLE B.

REPORT ON FRACTURES,

BY LEWIS A. SAYRE, M. D.

PROFESSOR OF ORTHOPEDIC SURGERY AND CLINICAL SURGERY, BELLEVUE HOSPITAL MEDICAL COLLEGE, SURGEON TO BELLEVUE HOSPITAL, ETC., ETC., ETC.

There is such a difference of opinion in the profession in regard to the proper treatment of fractures, and also as to the prognosis in such accidents, that it seems to me a proper

subject to bring before the association for discussion, and see if, with the advantages we now have of anæsthetics, and also the numerous methods that have lately been adopted of retaining the bones in position, we cannot settle upon some fixed plan of treatment, that shall be of universal application, and that shall give better average results than heretofore we have been taught to consider as satisfactory.

When I was a student we were taught that as the bones did not commence to unite until after the ninth day, there was no absolute necessity to have them accurately adjusted until after this period; that all that was necessary during these nine days was to support the fractured limb on pillows in as good a position as was convenient, to make the patient in this way as comfortable as possible, and to combat inflammation with evaporating lotions, &c., &c., and to wait until the inflammation and swelling of the soft parts around the seat of fracture had subsided before we "set" the bone.

This was the universal practice at the New York Hospital at that time, and of all the physicians with whom I was acquainted. I am sorry to say that I have heard of two cases treated in this way in this city, within the past few months, and by gentlemen of position in the profession.

The first case of fracture that I saw after commencing practice early taught me the error of this doctrine, and I have never followed it since. I now always adjust a fracture as soon as I see it (if it is possible to do so), whether it be simple, compound, comminuted, or complicated, and then try to keep it in position, if possible. Of course I do not include in this statement cases in which amputation is the only remedy.

As the result of my experience I would lay it down as a rule, that it is our duty to replace and accurately adjust all cases of fracture, which do not require amputation, *immediately* after the occurrence of the fracture, or as soon as we are called to see it, whether it be one hour or two days after the accident. If it is replaced *immediately* after the accident, the swelling of the soft parts will not take place to the same

extent as when left distorted; and in many cases that I have seen, no swelling at all has occurred.

The bones are merely the framework to keep the body in shape and form. Each man's bones, whether tall or short, have muscles, blood-vessels, nerves, and connecting tissues perfectly to correspond, if he is not deformed. When the bone is fractured, the muscles traversing the fractured spot, by their contraction, produce shortening and distortion. By the contraction of the muscles the blood-vessels are necessarily looped in folds or zigzagged, thereby preventing free circulation through them.

Arteries having the *vis à tergo* from the heart's contraction, together with the contractility of their own muscular coat, may have power to force the blood through these obstructed channels to the portions of the limb beyond the fracture; but the veins, which are deprived of this propelling power, cannot return the blood through these angular distortions. Hence the œdema and effusion into the cellular tissue surrounding fractured bones that have not been immediately replaced in their normal position. Consequently the truth of my first remark, as to the necessity of immediate reduction of the fractures, must be apparent.

The evidences of fracture, as taught by all authorities, such as shortening, deformity, false point of motion, crepitus, &c., are so well established as to require no discussion.

The method of reduction and the time when it should be done, being moot questions, are deserving of consideration.

In fractures of the cranium, the plan of treatment is so well established as to require no additional amplification.

In fractures of the spine, reclining in a horizontal posture and a state of total rest, upon an air or water bed (air bed being preferable), with some fixed apparatus, such as Plaster of Paris, dextrine, the silicates, celluloid, albumen, and flour, &c., to prevent possibility of motion, is all that is requisite.

For fractures of the upper and lower jaw, the plan of treatment and mechanical contrivances employed by Dr. N. Kingsley, dental surgeon, preclude the necessity of further amplification.

In cases of fractured ribs, a broad band of adhesive plaster or bandage around the body, to hold the parts steady, is all that is necessary.

Fractures of the long bones require that *extension* and *counter-extension*, *under the influence of chloroform*, or other anæsthetic, if necessary, should be made in a *proper direction*, until perfect accuracy of adjustment is obtained, and after this, *retention* and *fixation in this normal condition* until *consolidation*.

By *accuracy of adjustment* I mean the perfectly normal condition of the bone as to length and position. When the extension and counter-extension have been properly made, the muscles and other tissues surrounding the bones will necessarily and positively force the fractured extremities into their natural position, as above described, unless some foreign body, as a shred of muscle or connective tissue, has got between the fragments.

All extension beyond this point of perfect accuracy of adjustment is unnecessary and injurious; for, being abnormal, it excites reflex contractions. Hence the objection to continued extension, which keeps up reflex irritation, or else by paralyzing the muscles allows of elongation, and consequently frequently results in non-union.

All extension short of that necessary to this perfect adjustment is insufficient, leaving the extremities of the bone as sources of irritation, and causing pain and muscular contractions as well as leaving the vessels in a looped position, causing the œdema heretofore described. The nerves, also, being in an abnormal position, are additional sources of irritation.

When the bone (whatever bone it may be) is thus placed and retained in its normal position, the patient is free from pain, and all the functions of the limb are as well performed, in cases of simple fracture, and the recovery, in a healthy constitution, will be as perfect and complete, with normal length, without deformity, as if no fracture had occurred. If the limb has been extended to its normal length, the bones

must necessarily be accurately adjusted by the surrounding tissues. If this position, therefore, be positively maintained, shortening cannot by any means take place, but rather a lengthening to the extent of the plastic material effused between the bones that joins the fractured extremities. . . . .

The plan that has here been briefly sketched I believe to be of universal application, and the surgeon who can the most accurately put it into actual practice will have the best results in the treatment of fractures. In a report of this nature, which is simply intended to bring up the subject for discussion, it would be altogether out of place to go into the details of the treatment of fractures of each different bone, as it would make a paper altogether too voluminous for publication in the Transactions of the Association. But I will simply supplement it by a table of the fractures treated in Bellevue Hospital in the year 1873, which has been compiled from the hospital records by Dr. Van Wagenen, late house surgeon to Bellevue Hospital.

It will be particularly observed in studying these tables that the three cases of greatest shortening, in which the permanent dressing of Plaster of Paris was applied, were the three cases that were necessarily confined to their bed on account of other complications, showing that if this dressing is the one preferred by the surgeon, it is better to keep his patient up and walking about occasionally, as the limb will then fill with blood and retain its accuracy of fit to the plaster casing; whereas the horizontal posture allows of more shrinkage, and the extension not being accurately retained necessitates the more frequent change of the dressings.

A RECORD OF FRACTURES TREATED AT BELLEVUE HOSPITAL WITH PLASTER PARIS APPARATUS,

From April 1, 1872, *to April* 1, 1873,

INCLUDING ONLY THOSE CASES OF WHICH A THOROUGH RECORD COULD BE FOUND.

TABULATED BY

GEO. A. VAN WAGENEN, M. D.,

House Surgeon, Bellevue Hospital, October, 1872 — *April,* 1873.

The record of fracture of femur is full, including almost all the cases treated, while the record of results in less important cases (as fractures of the leg) has been neglected in many instances. Many were simply marked "*cured*," with no statement as to time, number of splints, and condition of the limb after treatment, &c. *These were all* REJECTED in the inclosed tables.

G. A. V. W.

SIMPLE FRACTURES OF OS FEMORIS.

No.	Sex.	Age.	Point.	Shortening, Deformity, &c.	Cause of Injury.	Number of splints.	Result.	Anæsthetic.	Remarks.	
1	M.	3½	Junction middle & lower third.	Transverse, short 1 inch.	Fall down stairs.	1	¼ inch short.	None.	—	—
2	M.	7	Just below troch. major.	¾ inch short.	Fall against curb.	1	No shortening.	Ether.	—	—
3	M.	9	Junction upper & middle third.	1½ inch short.	Struck by car.	1	¾ inch short; firm union.	None.	Buck's extension was used until February 25 (first 15 days).	
4	M.	10	Junction upper & middle third,	1¾ inch short.	Fall of three stories.	1	¾ inch short.	Ether.	—	—
5	M.	15	Middle third.	1¾ inch short.	Pile of lumber fell on him.	1	⅛ inch short.	Ether.	—	—
6	F.	16	2 inches above knee.	Crepitus and false motion; no defor'ty; no shortening.	Fall 10 feet.	2	No shortening; good union, &c.	None.	—	—
7	M.	19	Middle third.	1½ inch short.	Fall 3 stories.	1	¾ inch shortening; good union, &c.	None.	—	—
8	M.	23	Middle shaft.	—	—	1	No shortening.	Ether.	—	—
9	M.	26	Middle shaft.	—	Fall 30 feet.	2	1½ inch short; slight bowing outward.	Ether both times.	Buck's extension for first 3 days. This patient had pneumonia, and remained in bed all the time during treatment.	
10	M.	26	Lower third.	1½ inch short.	—	1	¾ inch shortening; union firm.	None.	Buck's extension had been used for 18 days; shortening still 1½ inch. This was reduced by pulleys to ¾ inch, and plaster applied.	
11	M	26	Middle shaft.	—	Fall 30 feet.	1	½ inch shortening.	None.	This patient also had dislocation of opposite femur into sciatic notch, delaying the application of plaster to fractured limb.	
12	F.	29	Middle third.	—	Fall 4 stories.	1	½ inch shortening.	Ether.	Removed early on account of a bed sore (25th day).	
13	M.	35	Just below troch. major.	Great swelling. ⅞ inch short.	Fall 6 feet.	1	½ inch shortening.	-	Buck's extension for 11 days until swelling subsided.	
14	M.	37	Middle shaft.	⅞ in. short.	Fall 20 feet.	1	¼ inch shortening; union and position good.	-	—	—

SIMPLE FRACTURES OF OS FEMORIS (*Continued*).

No.	Sex.	Age.	Point.	Shortening, Deformity, &c.	Cause of Injury.	Number of splints.	Result.	Anæsthetic.	Remarks.	
15	M	43	Junction middle & lower third.	2 inches short, and lateral deform.	Fall 10 feet.	1	½ inch shortening.	-	—	—
16	M.	43	3 inches above condyles.	1 inch short; great swelling.	Kick of horse.	1	⅛ inch shortening; position and union perfect.	Ether.	—	—
17	M.	45	Middle third.	1 inch short.	Fall on ground.	1	1⅛ inch shortening.	-	—	— Delirium tremens came on Dec. 18, before the splint was applied.
18	M.	45	Junction middle & upper third.	—	Run over by truck.	2	Ununited.	Ether both times.	A leather splint was arranged for him, and he was able to *walk* aided by a crutch. The first splint was loose when removed.	
19	M.	44	Upper third.	—	—	1	¾ inch shortening.	Ether.	The splint excoriated perinæum and was removed, Buck's extension being applied.	
20	M.	46	Junction middle & lower third.	2 inches short.	Case of goods fell on him.	2	½ inch shortening.	Ether.	—	—
21	M.	54	Middle third.	1½ inch short.	Run over by wagon.	1	⅛ inch shortening; slight stiffness at knee.	Ether.	—	—
22	M.	56	Upper third.	½ inch short, lateral deformity.	Fall down stairs.	1	2 inches shortening.	Ether	Patient had subacute pleurisy, and was kept in bed during treatment. He lost flesh, and the splint became very loose.	
23	F.	60	Intracapsul.	1 inch short.	Fall on ground.	1	1 inch short (same) but she now walks.	-	This was applied simply to allow her to go about with a crutch.	
24	M.	60	Neck, extracapsul.	1¼ inch short.	Struck by wagon.	1	¼ inch shortening; union and position right.	None. Pat'nt had card'c.	—	—
25	M.	65	Neck, extracapsul.	—	—	1	½ inch shortening.	None.	—	—
26	M.	65	Intracapsul.	¾ inch short.	Fall on ground.	1	½ inch shortening.	Ether.	—	—
27	M.	74	Through troch. major.	2 inches short.	Fall 20 feet.	1	¼ inch shortening; union, &c., perfect.	-	Patient had pneumonia after plaster was applied, and was kept in bed 12 days.	

COMPOUND FRACTURES OF OS FEMORIS.

1	M.	8	Upper third.	—	Run over by truck.	1	¼ inch shortening; union and position perfect.	None.	The wound was sealed with collodion on muslin, and patient kept in bed with Buck's extension and coaptation splints on. Plaster not applied immediately for fear of doing injury to the limb in the struggle he would probably make.

COMPLICATED FRACTURES OF OS FEMORIS.

1	M.	19	Lower part of middle third.	—	Crushed between two railroad cars in a railroad accident.	2 1 leg.	⅛ inch lengthening.	Ether both times.	A splint was first put on the fractured leg, from this extension was made to bring down the femur Next day, leg splint was cut off to the knee and a new one put on to be sure that extension had done no harm to leg.
2	M.	33	Middle.	—	Run over by truck.	1, 4, leg.	No shortening; absolute.	Ether.	The splints were arranged for extension as in the case above.
3	F.	17	Lower third, middle third.	—	Struck by rocks from a blast.	2 1 arm.	⅛ inch shortening; position and union perfect.	Ether both times.	— —
4	M.	18	Oblique just about middle, just above condyles.	Oblique, 1 inch short; 1 inch short, oblique.	Fall 30 feet.	2 1	⅔ inch shortening; position, &c., perfect.	Ether.	— —

SIMPLE FRACTURES OF PATELLA.

1	F.	19	—	¾ inch separation.	Fall.	1	¼ inch separation; union good.	-	Adhesive plaster strips were used for first 4 days, but they did not answer at all.
2	F.	19	—	Considerable separation.	Fall.	1	Moderate motion (separation not recorded.)	-	— —
3	M.	24	Transverse.	Widely separated.	Muscular contraction in attempting to catch himself.	5	¼ inch separation; firm ligamentous union.	-	The apposition of the fragments was found to be perfect every time the splints were removed, except the last.

SIMPLE FRACTURES OF PATELLA (*Continued*).

No.	Sex.	Age.	Point.	Shortening, deformity, &c.	Cause of injury.	Number of splints.	Result.	Anæsthetic.	Remarks.
4	M.	30	Transverse.	¾ inch separation.	Muscular contract. in attempting to catch himself.	2	¾ inch separation; knee rather stiff.	–	It is not stated why last splint was removed so soon.
5	M.	35	Transverse.	1 inch separation.	—	2	¼ inch separation; good union.	–	— —
6	M.	36	Transverse.	¾ inch separation.	Fall.	1	¾ inch separation.	–	— —

COMPOUND FRACTURES OF PATELLA.

1	M.	55	Comminuted.	1 inch separation; great swelling.	Fell, striking patella on a stone step.	1	No separation; good union and motion.	–	Application of the splint was delayed by swelling.

SIMPLE FRACTURES OF TIBIA.

1	M.	18	Middle.	—	—	2	Perfect.	–	— —
2	F.	20	2 inches above malleolus.	—	Slipped on the ground.	2	Perfect.	–	— —
3	F.	27	2 inches above malleolus.	—	Slipped on ground.	1	Right.	–	— —
4	M.	29	6 inches below patella.	Oblique.	Crushed by case of goods, 900 lbs.	4	Union not firm.	–	The patient was discharged with the 4th splint on. Silicate soda was used in 3d splint, as plaster was uncomfortable.
5	M.	29	Middle.	Oblique.	Slipped on ground.	2	Union and position good; some temporary paralysis of extensors of foot.	–	— —

6	F.	30	5 inches above malleolus.	—	Slipped on ground.	2	Good union.	-	—	—
7	M.	35	4 inches above malleolus.	Oblique; some shortening; considerable swelling.	Fall 5 feet.	1	Union and position good.	-	—	—
8	F.	42	Junction middle and lower third.	None.	Fall on ice.	2	Union and position good.	-	—	—
9	F.	50	3 inches below patella.	—	—	1	Fibrous union; position good.	-	This patient came into hospital several weeks after injury. The splint was put on to enable her to go about ward.	
10	M.	54	5 inches below patella.	—	—	1	Perfect.	-	—	—
11	M.	75	Junction of middle and upper third.	Bows out.	Horse stepped on his leg.	3	Position good; union not very firm.	-	It is not recorded what was used between March 13, and March 24, when patient seems to have been without splints.	
12	M.	No record	1.3 in. below patella. 2.7 in. below patella.	—	Fall.	1	Union and position perfect.	-	—	—

COMPOUND FRACTURES OF TIBIA.

1	M.	19	Lower and middle third. Lower part middle third.	—	Railroad accident.	3 2	$\frac{1}{16}$ inch longer; union and position perfect.	Ether twice.	This patient walked from the battery to Central Park in latter part of September. He was of good family, healthy, and plucky.
2	M.	22	Middle third.	Very oblique.	—	3	Union and position perfect; joint a little stiff.	None.	The splints were changed as they became soaked with the discharges.
3	F.	34	2 inches above malleolus.	—	—	1	Perfect.		—	—

SIMPLE FRACTURES (POTTS') AND OF FIBULA.

No.	Sex.	Age.	Point.	Shortening, deformity, &c.	Cause of injury.	No. splints.	Result.	Anæsthetic.	Remarks.	
1	M.	25	Potts' fracture.	—	Slipped on ground.	1	Union and position perfect.	None.	—	—
2	M.	26	Potts' fracture.	—	—	1	Perfect.	None.	—	—
3	F.	36	Potts' fracture.	—	Fall.	1	—	—	This patient ran away with the splints on.	
4	M.	45	Potts' fracture.	—	—	1	All right.	—	—	—
5	F.	65	Potts' fracture.	—	Fall on ice.	1	Cured.	—	—	—
6	M.	50	Potts' fracture.	—	Fall.	1	Union and position perfect.	—	—	—

COMPOUND FRACTURES (POTTS').

1	F.	32	Potts' fracture.	—	Fall down stairs.	3	Union and position good.	—	Patient did not come to hospital until two weeks after accident.	
2	F.	55	Potts' fracture.	—	—	2	Perfect.	Ether.	—	—

SIMPLE FRACTURES OF FIBULA.

1	M.	30	3 inches above malleolus.	—	Fall.	2	Firm union.	—	—	—
2	M.	35	2½ inches above malleolus.	—	—	1	Perfect.	—	—	—
3	F.	—	External malleolus.	—	—	1	Good.	—	—	—

SIMPLE FRACTURES OF BOTH TIBIA AND FIBULA.

1	M.	16	Junction mid. and lower third.	Transverse fracture.	Fall 10 feet.	1	Cured.	—	—	—
2	M.	25	Lower third.	—	—	2	Union and position perfect.	—	—	—
3	M.	26	Near middle.	Oblique.	Jumping from a wagon he fell.	2	Union good, but slight deformity.	—	Pain ceased when the plaster splint was cut. This case was treated with silicate soda, the splint being braced ant. and post. with iron strips.	
4	F.	28	Near middle.	—	Slipped on ground.	1	Cured.	—	—	—
5	F.	29	3½ inches above malleolus.	Swollen.	Slipped and fell on ice.	2	Union and position perfect.	—	—	—
6	M.	30	Upper third.	Swollen.	Struck by a "jack" which slipped in raising a ship.	2	Union and position perfect.	—	—	—
7	M.	30	Middle third.	—	—	3	Union and position perfect.	Ether 1st time.	The patient is suffering from tertiary syphilis.	
8	M.	30		Oblique.	Slipped on ground.	1	No record.	—	—	—
9	M.	38	—	—	Fall.	1	Union and position perfect.	—	Dec. 9, in delirium tremens patient walked about the ward on his splint until secured; neither the leg nor splint were injured.	
10	M.	40	Junction lower and middle third.	—	—	2	Union and position perfect.	Ether to reduce fract. 1st time.	—	—
11	—	42	—	—	Direct violence.	1	Union and position perfect.	—	—	—
12	M.	42	—	—	—	2	Union and position perfect.	—	—	—
13	M.	45	Junction lower and middle third.	Badly swollen.	Fall 10 feet.	starch plastr. 1	Some deformity after the starch; no record of plaster.	—	—	—
14	M.	45	—	Oblique.	Slipped on ground	1	⅝ inch shortening.	—	—	—
15	F.	50	2 inches above malleolus. ½ inch above malleolus.	Great deformity.	—	1	Some deformity.	Ether.	—	—
16	F.	55	—	—	—	1	Union and position perfect.			

COMPLICATED FRACTURES (NOT COMPOUND) OF BOTH TIBIA AND FIBULA.

No.	Sex.	Age.	Point.	Shortening, deformity, &c.	Cause of injury.	No. splints.	Result.	Anæsthetic.	Remarks.
1	M.	21	1. Near malleoli. 2. Middle shaft. 3. Upper third.	Short 1½ inch.	—	2	Union, length, and position perfect.	Ether 2d splint.	When the first splint was removed there was 1 inch shortening. Ether and the comp'd pulleys were used, the reduction made perfect, and 2d splint applied.
2	M.	23	3 and 8 inches above malleolus. 3 and 8 inches above malleolus.	Swollen and inverted.	Slipped on ground.	2	Union and position perfect.	—	— —
3	M.	24	—	—	—	1	Union and position perfect.	Ether.	— —
4	M.	33	Middle. Middle.	—	Run over by truck.	4 1	Union not very firm; allowed to go out with a splint on.	—	The second leg splint was applied because extension was made from the first and pressure was feared. (See same under fractures of Os Femoris.)
5	M.	41	—	—	A barrel of beer fell on the leg.	3	Union firm.	Ether.	Patient was a great drinker.

COMPOUND FRACTURES OF BOTH TIBIA AND FIBULA.

1	M.	8	Junction lower and middle third.	—	Run over by horse car.	right 1 left 2	Slight overlapping of fragments; left perfect, but some necrosis.	None.	Patient almost died of hemorrhage before admission. It was intended to amputate both legs, but he was too weak.
2	M.	23	Junction lower and middle third.	—	Direct violence.	1	Union and position perfect.	—	This patient, contrary to orders, left his ward at night and slept in a tent with a case of pyæmia; erysip. migrans set in, and he died in about two or three weeks.
3	M.	23	Junction lower and middle third.	—	A 1575 lb. roller passed over the limb.	2	Firm union; some necrosis.	Chlorof'm 1st sp.	Patient had a severe septicæmia, but recovered.

4	M.	26	Middle.	—	Run over by horse car.	3	Union and position perfect; some necrosis.	None.	It was at first intended to amputate, but afterwards it was concluded to try plaster first.
5	M.	28	2 inches above malleolus.	—	—	2	Perfect.	—	— —
6	M.	36	Middle third.	1 inch of bone removed; no swelling.	Fall 20 feet.	1	Cured.	—	The wound was sealed with lint and collodion.
7	M.	42	Junction upper and middle third.	Lower fragment projects.	—	1	—	—	— —

SIMPLE FRACTURES OF HUMERUS.

1	M.	12	—	—	Fell 6 stories.	1	Union good.	—	I find this boy also had fractured radius and ulna of opposite side.
2	M.	17	Surg. neck.	Considerable shortening.	Fell 10 feet.	1	No marked deformity, union good.	—	— —
3	M.	19	Middle.	—	—	1	No deformity, union good.	—	— —
4	M.	21	Middle third.			2	Union and position good.	—	He pulled his arm very forcibly back during passive motion and snapped the bone in about the same place.
			Middle third.	—	Patient jerked his arm during passive motion.	1	Union and position good.		
5	F.	23	Junction middle and lower third.	Oblique displacement.	Twisted by policeman.	1	Firm union.	—	— —
6	M.	28	Surg. neck.	—	Fell one flight stairs.	2	Good union and motion, slight projection of upper fragment.	—	— —
7	M.	58	Surg. neck.	No swelling, lower fragment displaced inward.	—	1	Good union.	—	Patient has had pneumonia while under treatment for the fracture.

COMMINUTED FRACTURES OF HUMERUS.

No.	Sex.	Age.	Point.	Shortening, deformity, &c.	Cause of injury.	No. splints.	Result.	Anæsthetic.	Remarks.	
1	M.	11	Through the condyles, which are comminuted.	—	Fell on sidewalk.	1	Very slight anchylosis.	—	—	—
2	M.	35	Junction upper and middle third.	—	Fell on sidewalk.	1	Union firm.	—	—	—

COMPOUND FRACTURES OF HUMERUS.

1	M.	11	Both condyles head; 2 inches below joint.	—	Elbow caught in iron doors.	2	Good union; slight motion only.	—	He finally had motion through about 30 degrees. The joint was opened by the accident.	

COMPLICATED FRACTURES OF HUMERUS.

1	M.	7	External condyles.	—	—	1	Union and position good; some little stiffness at joint.	—	Passive motion was being used, but the boy ran away.	
2	F.	17	Middle third. Middle third.	—	Struck by rocks from a distant blast.	1 2	Perfect; $\frac{1}{3}$ inch shortening, union and position perfect.	Ether. both times.	—	—
3	M.	18	Just above condyles; middle third.	Oblique. Oblique.	Fall 33 feet.	2 1	Union and position good; $\frac{2}{3}$ inch shortening.	Ether.	—	—
4	M.	45	Internal condyle; 1. Olecranon; 2. $1\frac{1}{2}$ inch bel. coronoid process.	—	—	1 Same splint.	Union and position good; 1. Fibrinous un. 2. Union and position good.	—	—	—

FRACTURES OF ULNA.

1	M.	23	Upper third.	Upper fragment drawn forward and upward.	Fall on ground.	1	Union and position perfect.	Ether.	Patient did not come to hospital until one week after injury.
2	M.	27	Olecranon.	—	Fight.	1	Good apposition; union not firm.	—	Complicated by fracture of leg, the result of which is not recorded.
3	M.	45	1. Olecranon, 2½ inch bel. joint; internal condyle.	—	—	1	1 Fibrinous union. 2. Good union and position. Good union and position.	—	— — Humerus.

FRACTURES OF BOTH RADIUS AND ULNA.

1	M.	11	Head; 2 inches below joint; both condyles.	—	—	2	Union and position good; some stiffness at elbow.	—	Motion through about 30 degrees.
2	M.	32	Lower third; olecranon.	Drawn up.	Fell 50 feet.	1	Union firm; motion not perfect.	—	Arm moves through about 90 degrees.

TABLE C.—FRACTURES OF THE FEMUR.

Extra-capsular.

From Hamilton (N. Y.) Med. Jour., Aug. 1874.

No.	Age when it occurred.	Time since it occurred.	Sex.	Right or left side.	Character of the fracture.	Treatment.	Result. United or not.	When united.	Amount of shortening.	Surgeon, Hospital and Remarks.	Perfect or Imperfect.
1	33 y.	–	M	–	Impacted.	Plaster Paris.	U.	44 d.	⅛ in.	Service of Wood. Bellevue Hospital.	Im.

Just below Trochanters.

1	12 y.	–	M	R	Complicated.	Plaster Paris.	U.	34 d.	1 in.	Dr. Early. Reception Hospital.	Im.
2	16 y.	–	M	R	Simple.	Plaster Paris.	U.	72 d.	⅛ in.	Dr. Wood. Bellevue Hospital.	Im.
3	23 y.	–	M	L	Simple.	Plaster Paris.	U.	49 d.	None.	Dr. Van Wagenen. Bellevue.	P.
4	27 y.	–	M	L	Simple.	Plaster Paris.	U.	–	1½ in.	Dr. Sands. B'vue. Abscess 1st month.	Im.
5	68 y.	–	M	L	Simple.	Plaster Paris on 19th day.	–	–	⅜ in.	Bellevue. Death from ether.	Im.

Middle of Shaft.

1	11 y.	–	M	L	Simple.	Plaster Paris.	U.	–	¾ in.	Deformity. Passive anchylosis. Knee.	Im.
2	15 y.	–	M	–	Simple.	Plaster Paris.	U.	1 m.	⅛ in.	St. Francis's Hosp.	Im.
3	16 y.	–	M	L	Simple.	Plaster Paris.	U.	6 w.	1½ in.	Park Hosp. Fluhrer (Surg.)	Im.
4	17 y.	–	M	L	Simple.	Plaster Paris.	U.	53 d.	1 in.	Recep. Hosp. Great deformity.	Im.
5	26 y.	–	M	R	Simple.	Plaster Paris.	U.	6 w.	¾ in.	Fluhrer. Park Hosp. Limps a little.	Im.
6	24 y.	–	M	L	Simple.	Plaster Paris.	U.	28 d.	1¼ in.	Fluhrer & Early. Park Hosp.	Im.
7	25 y.	–	M	R	Simple.	Plaster Paris.	U.	2 m.	1 in.	Park Hospital. Dr. McKowan.	Im.
8	30 y.	–	F	R	Simple.	Plaster Paris.	U.	49 d.	1⅛ in.	29th day no union. Anchylosis after 3 months. Dr. Fluhrer.	Im.
9	21 y.	–	M	L	Simple.	Plaster Paris.	U.	–	1¼ in.	Dr. Griffiths. Bellevue Hospital.	Im.
10	26 y.	–	M	R	Simple.	Plaster Paris.	U.	6 w.	⅜ in.	Hamilton & Torrey. Bellevue.	Im.
11	29 y.	–	M	–	Simple.	Plaster Paris.	U.	3 m.	¾ in.	Goulay & Street. Bellevue. Refract. in 4 months.	Im.
12	24 y.	–	M	L	Simple.	Plaster Paris.	U.	6 w.	⅜ in.	Figaro. Bellevue. Refract. in 5 mon.	Im.
13	39 y.	–	M	R	Simple.	Plaster Paris.	–	–	1¾ in.	Hamilton & Lewis. Deformity.	Im.
14	70 y.	–	F	R	Simple.	Plaster Paris.	N. U.	–	–	Bellevue Hospital.	Im.
15	44 y.	–	F	R	Complicated.	Plaster Paris.	U.	2 m.	2 in.	Bellevue. Wood. (Surg.) Anchl'sis.	Im.
16	66 y.	–	M	R	Simple.	Plaster Paris.	U.	2 m.	1 in.	Bellevue. Wood. (Surg.) Anchl'sis.	Im.

TABLE C.—FRACTURES OF THE FEMUR (*Continued*).

Middle of Shaft. (*Continued.*)

From Hamilton (N. Y.) Med. Jour., Aug. 1874.

No	Age when it occurred.	Time since it occurred.	Sex.	Right or left side.	Character of the fracture.	Treatment.	Result.				
							United or not.	When united.	Amount of shortening.	Surgeon, Hospital and Remarks.	Perfect or Imperfect.
17	50 y.	–	F	R	Simple.	Plaster Paris.	U.	–	1 in.	Bellevue Hospital. Hamilton.	Im.
18	22 y.	–	M	R	–	Plaster Paris.	U.	51 d.	¾ in.	Bellevue Hospital. Wood. Anchylosis.	Im.
19	23 y.	–	M	–	Simple.	Plaster Paris.	–	–	–	Recep. Hosp. Gangrene. Amputation. Death.	Im.
20	20 y.	–	F	R	Simple.	Plaster Paris.	U.	–	⅝ in.	Bellevue. Sands.	Im.

Lower Third.

1	40 y.	–	M	R	Simple.	Plaster Paris.	U.	–	⅛ in.	Park Hosp. Early.	Im.
2	51 y.	–	M	L	Compound.	Plaster Paris.	U.	–	⅛ in.	Bellevue Hospital.	Im.

In the same paper Prof. Hamilton presents us the history of nine cases of fracture of the femur treated during the years 1871–3–4, by his own method and that of Buck, both being, essentially, extension by weight and pulley, with counter-extension, — Hamilton utilizing the weight of the patient's body, Buck using a perineal bandage made of inch rubber tubing.

In Fractures and Dislocations (p. 436, 5th ed.), he extends this table so as to include twenty-four cases. On the next page he has to record two more cases of gangrene and death from the immovable dressing.

TABLE D.—FRACTURES OF THE FEMUR.

From Hamilton (N. Y.) Med. Jour., Aug., 1874.

No.	Age when it occurred.	Time since it occurred.	Sex.	Right or left side.	Character of the fracture.	Treatment.	Result.				
							United or not.	When united.	Amount of shortening.	Remarks.	Perfect or Imperfect.
1	18 y.	–	M	R	Simple Mid.	Hamilton's apparatus.	U.	1 m.	None.	20 lbs. extension. Straight.	P.
2	6 y.	–	M	L	Simple Mid.	2 thigh splints.	U.	–	None.	5 lbs. extension. Straight.	P.
3	6 y.	–	M	L	Slight wound.	2 thigh splints.	U.	–	None.	Mid. ⅓. Straight, no anchylosis.	P.
4	9 y.	–	M	L	Slight wound.	2 thigh splints.	U.	5 w.	½ in.	Mid. ⅓.	Im.
5	33 y.	–	M	L	Simple Mid.	Hamilton's apparatus.	U.	6 w.	⅝ in.	23–20–15 lbs. &c. Straight.	Im.
6	40 y.	–	F	–	Neck. Ex-cap.	Hamilton's apparatus.	U.	–	⅝ in.	Wood, 2 weeks.	Im.
7	50 y.	–	F	R	Neck. Ex-cap.	Buck's apparat.	U.	–	1 in.	Fluhrer at Park Hospital.	Im.
8	60 y.	–	F	R	Neck. Int-cap.	No dressing for 7 days.	U.	–	⅞ in.	Dr. Terriberry applied extension, but no long side splint.	–
9	20 y.	–	F	–	–	—	–	–	–	No. 20, fract. Mid. in previous table.	–

There is one point in connection with the use of Plaster of Paris and other forms of immovable dressing which has not received the attention of surgeons so much as it should have done, and that is the necessity of *fixing* the joints on either side of the fracture, so that they will be immovable. Yet this immobility of the joints for any great length of time is objectionable. Altogether this form of dressing seems to be better adapted as a secondary rather than as a primary dressing.

Complications. Implication of the joint in the line of fracture almost necessarily gives rise to a certain amount of stiffness, or absolute anchylosis, by the deposition of irregular masses of bony material into and around the joint. Of this character are the osteophytes, which are so apt to form, during the repair of fractures, near the shoulder and hip-joints. Over these formations the surgeon has but little if any control. Again, in strumous or scrofulous patients, such implication may cause disorganization of the articulation,

and thus eventually render amputation imperative. Chorea, affecting a limb which is the seat of a fracture, is a very serious complication. Fractures in a paralyzed limb unite; danger to be apprehended here is from sloughing. Tardy or delayed union of bones is occasionally met with, and is, probably, more often dependent on constitutional than on local causes. Sometimes it appears to result from mere debility and depression, without the existence of any positive cachexia. Occasionally, a broken bone does not unite at all, or unites only through the medium of fibrous or ligamentous bands; or, having united, becomes again separated by the absorption and softening of the callus. In some bones, indeed, as in the patella, bony union almost never occurs. So also fractures of the neck of the femur, within the capsule. Among the causes of non-union may be mentioned general impairment of health, and various cachectic conditions and diatheses, such as scurvy, phthisis, rickets, syphilis, or cancer.

In respect to union in the case of paralyzed limbs, I think, when it takes place, it certainly must be somewhat slower than usual. It is an accepted doctrine, that the nutrition in a paralyzed part is generally if not always impaired, and as a consequence repair must progress slowly. Nutrition might be so much impaired that union would not take place at all. Mr. Travers reports a case in which a "patient had a fracture in the arm and another in the leg complicated with an injury of the spine which palsied the lower half of the body. The broken humerus readily united, but the tibia and fibula refused to heal." Gross's Surg. vol. 1 (3d ed.), p. 882.

In suits for malpractice in the treatment of fractures of the lower extremity, one of the allegations is, generally, "shortening." "With regard to the prognosis of fractures through the shaft of the femur, I have no hesitation in saying that I have never seen a *perfect cure*, either in my own practice or in that of others; by this I mean, that I have never seen a cure without shortening. . . . . I have never seen less shortening than a quarter of an inch after fracture of the thigh,

even in children; and I consider a shortening of from half an inch to an inch a satisfactory result in adults." Ashurst's Surg. 260.

Velpeau says that "after fractures of the femur there is no limping unless the shortening exceeds three quarters of an inch; and the same is true if the shortening occurs in the tibia."

"When, in consequence of displacement, an overlapping continues, the average amount of shortening, in adults, in simple fractures, will be about three quarters of an inch, and ranging from one quarter of an inch to one inch and a half; nor will a greater amount of shortening necessarily imply unskilful management. With children, the average amount of shortening is probably from one quarter to half an inch. Compound fractures, including nearly all gunshot fractures, unite generally with a shortening of from one and a half to three inches or more. In fractures of the tibia and fibula, which are mostly oblique, union generally takes place with a shortening of half an inch." Hamilton, Princip. and Prac. of Surg. 292, 308.

Among eminent surgeons who claim to have cured most or all fractures of the femur without shortening, may be mentioned Amesbury, South, Hunt, and Gamgee, of England; Dorsey of Philadelphia, and Scott of Montreal. In regard to these, Professor Hamilton remarks: "It is never a pleasant duty to call in question the accuracy of another's statements as to what he has himself alone seen and experienced. The circumstances which would justify such an expression of skepticism, where the witnesses, as in this case, are presumed to be intelligent and honest men, must be extraordinary. Such, however, I conceive to be the circumstances in this instance. It is certainly very extraordinary that a few gentlemen of acknowledged skill, but whose means and appliances are concealed from no one, are able to do what nearly the whole world besides, with the same means, acknowledges itself unable to accomplish. Such is the fact, nevertheless; and our lack of faith in their testimony is only a necessary

result of our experience, and of the experience of the vast majority of practical surgeons as opposed to theirs."

In the same connection Professor Hamilton gives the names of the many eminent surgeons who admit shortening as a necessary sequence in most fractures of the femur. Among these names we find Hippocrates, Celsus, Avicenna, Sculte-tus, Chelius, John Bell, Benj. Bell, Nelaton, Malgaigne, Maclise, Holthouse, Mott, Knight, Detmold, J. Mason Warren, Bigelow, and Lente.

"It should be borne in mind that fractured limbs have been released from splints, and other dressings, at the proper time, of proper length and free from deformity, which, never-theless, have soon become both shortened and bent." Lis-ton's Elements of Surg. (Am. ed.) 555. See also Lane, "Inaugural Dissertation," University of Berlin, 1876.

Compound and comminuted fractures are much more difficult of management. Necrosis of some of the fragments almost necessarily follows.

It is extremely difficult to determine just what will follow any injury of a joint, in consequence of difference in the susceptibility of the joints. One patient may have a com-pound comminuted fracture of the patella and may have a perfect recovery, with a little antiphlogistic treatment.

Dr. James W. Bell, in Brit. Med. Jour., relates several cases bearing upon this point. One case in which a com-pound comminuted fracture of olecranon was followed, upon the fourth day, by unhealthy inflammation of the soft parts; pyæmia occurred and death was the result. Another, in which a lacerated wound of the knee-joint, without injury to the bone, was followed by traumatic delirium and death. Another, a youth whose knee-joint was twice injected with iodine which excited but little, if any, local inflammation or general disturbance.

Again, in certain fractures near joints it is impossible by any appliance to keep the fragments in apposition. Fract-ures of the tibia within the joint, where a portion of the exter-nal or fibular side of the tibia is separated from the shaft of

the bone, the fragment is held to the fibula by the tibio-fibular ligament; but the bone itself, no longer under control of this ligament, slips upon the smooth articular surface of the astragalus, puts the deltoid ligament on the stretch, and crowds the internal malleolus against the skin in the most threatening manner.

Fractures extending into joints are accidents of very great gravity from the inflammation that invariably follows.

NON-UNION.

Non-union will occur in a certain number of cases, no matter what care the surgeon may exercise.

Where, on account of the contusion and consequent dangers of undue inflammation, the dressing must not be applied tightly, every act of speaking or swallowing necessarily excites motion between the fragments, and in cases where there is a constitutional tendency to disease of the bones, as in syphilis, rachitis, &c., the surgeon should not be held responsible, and would not be if these conditions could be fully understood by courts and juries. So, too, the injudicious actions of the patient, the intervention of substances between the ends of the fragments, are conditions over which the surgeon has but little if any control.

For an interesting paper and table of one hundred and fifty cases of non-union, see, Norris, Contributions to Practical Surgery, also, Berenger-Ferand, Surg. Pathology.

Frequent motion of the fractured bone, which is held by some surgeons to be one of the most common causes of non-union, is without doubt one cause, but not the most common by any means. How seldom is a false joint found in animals, whose broken limbs usually get well without any treatment whatever. Indeed, handling a limb a little roughly, after the acute inflammatory symptoms have subsided, I apprehend, will rather hasten than retard bony union, by calling a larger afflux of blood to the seat of fracture, and consequently

a larger amount of reparative material. My impressions are, that the want of consolidation more frequently depends upon the slight amount of inflammation that follows the injury, rather than upon excess of this healing process, or upon the small amount of motion there could exist in a limb reasonably well supported by splints and bandages. Indeed, the local atony resulting often from the immobility aimed at by numerous forms of dressing, is a frequent cause of non-union; and the blisterings, setons, &c., used in the treatment, are based upon a sound principle — the removal of the atonic condition. So also judicious use of the injured limb after forty, or even after thirty days, will hasten and confirm the consolidating process. Under such exercise the passive congestion will give place to the plastic, while the general health of the patient will at the same time be encouraged.

Friction, or rubbing the extremities of the bones against each other; blisters applied over seat of fracture; setons, near or between the fragments; resection of the fractured extremities; compression and rest; electricity; perforation of ends of fragments and the insertion of ivory pegs, as recommended by Dieffenbach; or simple perforation of the fragments in various directions, covering the puncture through the soft tissues, immediately with collodion, as practised by the late Professor Brainard, are the means generally resorted to by surgeons to effect consolidation of the fracture. These failing, amputation is the last resort, and this only to be used when the false joint is such as to make the life of the patient miserable.

Following injuries in and about the joints, we sometimes have impairment or entire loss of motion in the joint. This condition is technically called anchylosis. As a subsequent result of the inflammatory process which attends such injuries, lymph is thrown out, and this becoming organized into connective tissue, the opposing extremities are so bound together that stiffness or immobility of the joint follows. This condition is termed *false* anchylosis, and is the condition that is frequently benefited by "natural bone setters," who

generally, removed from the pale of legal and moral responsibility, and not knowing what harm may result from their ignorance, violently rupture these false bands, and so restore the mobility of the joint. The same result sometimes follows a subsequent accident.

S. M. (case *v*, Fracture of Tibia and Fibula, Lower Third), was thrown from a wagon and sustained a compound fracture of tibia. Following the treatment, the ankle remained immovable some two or three years. Leading a restive animal from the stable, he was jerked forward violently, alighting on the toe of the injured limb. He felt something tear, and feared his limb was again broken. On removing his boot, he found the mobility of the ankle restored. Passive and active exercise of the joint resulted in complete restoration of its functions. Thus we perceive that the reduction of a *false* anchylosis is practicable by means of force, but from the application of this force, another form of inflammation may be aroused, viz., suppurative inflammation, whereby a destruction of the interior of the joint may result, and by a bony union of the opposing ends of the articulating bones *true* anchylosis will follow. But this is not the most serious result. The suppurative action may become so extensive as to demand the removal of the limb by amputation, or it may be so great as to result in death.

CHAPTER XVII.

NEGLIGENCE.

1. WHATEVER view physicians may take of the question of negligence, when it comes to be judicially investigated, it will be from the stand-point of the Law and not from that of Medicine. That is, cases of negligence in other departments of science, or in other professions, or employments in life, will be cited as bearing upon the case, and the law as applied to them will be applied to the medical or surgical case under consideration; it is proper, therefore, that physicians and surgeons should have some knowledge of its legal interpretation.

2. Strictly speaking, the term is limited in its application to carelessness in the performance of professional duty. Carelessness is its proper synonym. Duties performed without care, caution, attention, diligence, skill, prudence, or judgment, are negligently performed. Acts are so designated that are performed by one heedlessly, even where there is no purpose to omit the performance of duty. It is *non*-feasance, not *mal*-feasance. It is the omitting to do and not the ill-doing, — this last being a want of skill. It has been said that in its various degrees "it ranges between simple accident and actual fraud, the latter commencing where negligence ends." *Gardner* v. *Heartt*, 3 Denio, 232–236. This is rather a broad definition, and perhaps it was intended that negligence may be as prejudicial as fraud, for the court goes on to say, "Negligence is evidence of fraud, but still is not fraud." In *Tonawanda R. Co.* v. *Munger*, 5 Denio, 255–267, the same

court held that "Negligence, even when gross, is but an omission of duty," which relegates it to simple *non*-feasance. It is a violation of the obligation that medical men impliedly enter into when they accept the charge of a patient, which obligation enjoins care and caution in what they do and in what they omit to do.

3. Physicians and surgeons have specific duties imposed upon them. They are at liberty to refuse a mandate to perform these duties, but if they once enter upon the discharge of them, then they are to so conduct themselves that no injury results to the mandator, or that the least possible injury results; and if, at any time, they desire to withdraw from the case, they must give such reasonable notice of such withdrawal as will enable the mandator to perform those duties himself, or through some one else. Refusing to perform their part of the implied contract would constitute negligence, and for all injuries resulting therefrom they would be held accountable. It would constitute a tort for which the law gives damages. The law is applicable to attorneys as well as to physicians and surgeons.

"It is not every mistake or misapprehension of an attorney that will make him liable to an action for negligence. The question in such an action is, whether the attorney has used reasonable skill and reasonable care." *Shilcock* v. *Passman*, 7 Carr. & P. 289. This is all that is required of physicians and surgeons.

4. The surgeon must not perform serious operations, wherein large blood-vessels are opened, and leave the staunching of the hemorrhage to the patient and unskilled attendants. Nor must the obstetrician abandon his lying-in-patient, while in convulsions, nor after her delivery, until the placenta is removed, and all danger from post-partum hemorrhage is passed, in one liable to this accident; unless, it may be, he belongs to that school of practice "that permits the placenta to remain till expelled by efforts of nature." *Bowman* v. *Woods*, 1 G. Greene (Iowa), 441. It is not competent, however, for the plaintiff to give evidence that the defendant

abandoned the patient and refused to attend further upon him, unless the cause of action be so laid in the declaration. *Bemus* v. *Howard*, 3 Watts (Penn.), 255. Thus in *Hoby* v. *Built*, 3 Barnewall & Adolphus, 350, an action against an attorney for negligence, Bosanquet, J., told the jury, he was of opinion that, although an attorney who undertakes a cause is not bound, at all events, to proceed with it if he is not supplied with funds; yet, that an attorney who has undertaken a defence with a view to trial cannot abandon it on the eve of the assizes, without giving his client a reasonable opportunity of resorting to other assistance; and he directed them to consider whether the notice given in this case was, with reference to all the circumstances, reasonable in that respect. The jury found a verdict for the plaintiff, with £166 10*s.* damages.

Taken before the higher court, Lord TENTERDEN, C. J., declared that "the learned judge's direction was quite correct. If an attorney desires to quit his client, he must give him reasonable notice. It was left to the jury as a fact to say whether reasonable notice was given in this case or not, and they have found that it was not.

LITTLEDALE, J. The law was laid down most correctly to the jury. There was not sufficient time to have the attorney changed between Saturday and Thursday, and there might have been a difficulty in the plaintiff's raising the money in that time. Under the circumstances of this case, the defendant should at least have had an application made to the court to postpone the trial.

TAUNTON and PATTERSON, JJ., concurred.

In *Rowson* v. *Earle* the same learned Chief Justice held, that an attorney who had given notice that he would not go on with a cause in the Court of Chancery without being supplied with money, *had* a right to desist from it, and might recover for the work done up to that time. 9 Bingham, 402.

The same doctrine was laid down in *Vansandau and Tindale* v. *Browne*, 9 Bing. 402, by Tindal, C. J.; Gaselee, Bosanquet, and Alderson, JJ., concurred. In this case the most ample notice was given.

But it must be remembered, that whether the notice of retiring from the case be "reasonable and sufficient" is a question of fact, to be determined by the jury. So, too, in the case of a surgeon or physician, the question as to whether he had given the patient reasonable notice, when he chose no longer to sustain the responsibility of the case, would be a question of fact for the consideration of the jury.

5. In *Woodward* v. *Hancock*, 7 Jones Law N. C. 384, MANLY, J., said: "What amounts to reasonable skill and care belongs to a class of questions which are said to be compounded of law and fact. In this class stand reasonable time, due diligence, legal provocation, probable cause, and the like. A division of the question in such cases, between the court and jury, is now considered and settled; and, therefore, where there is a state of facts conceded or proved, it becomes the duty of the court to draw the conclusion as matter of law. If there be a conflict of testimony presenting different views of the case, it is, in like manner, the court's duty, upon these views, to draw the proper conclusions."

This was a case in which the court below had left it to the jury "to find whether the defendant possessed the requisite skill, and had exerted it in the plaintiff's behalf." The jury found that the defendant either had not the skill or had not used it. *Venire de novo* was ordered by the appellate court, because the question was one of law and fact, "and it was consequently erroneous to leave it, in that state, to be decided by the jury." The court, after citing some analogous cases, goes on to say: "None of these cases concerned the requisite skill and care in a learned profession; but if a separation of the inquiry in such cases into questions of law and fact be proper, in order to refer matters purely of reasoning to the tribunal most capable of considering them, and, therefore, most likely to maintain uniformity of decision, much more ought the question arising in this case to be so adjudged. It is seen to involve not only matter of reasoning, but reasoning as to the due execution of work in a learned science. We are of the opinion that it was error in the

Superior Court to leave it to the jury to decide the questions of skill and care in a surgeon's treatment of his patient, without the aid of the court's opinion, based upon proper suppositions as to the facts found by the jury." Therefore the *judgment was reversed.*

The same doctrine was enunciated in *Foot* v. *Wiswall*, 14 J. R. 304, but in most of the courts the question is considered as one simply of fact to be proved like any other. *Great Western R. R. Co. of* 1859 v. *Haworth et al.* 39 Ill. 346; *Skelley* v. *Kahn*, 17 Ill. 170; *The G. & C. U. R. R. Co.* v. *Yarwood*, Ibid. 509; *Ill. Cent. R. R. Co.* v. *Munn*, 57 Ill. 78; *Briggs* v. *Taylor*, 28 Vt. R. 180.

6. From the fact that a person who undertakes to do an act for another is only held to the exercise of reasonable or ordinary care, it follows that there must be degrees of negligence in the performance of such acts. In the *Steamboat New World* v. *King*, 16 Howard 469, U. S. S. C. R., CURTIS, J., said: "It may be doubted if these terms, 'slight,' 'ordinary,' and 'gross,' can be usefully applied in practice." In most of the cases, however, in which this view is taken, the question relates to whether a clause in an agreement, providing against liability for "negligence," "protected the party receiving it from liability for '*gross*' negligence, and it was held that it did." Shearman & Redfield on Negligence, § 16. Judge CURTIS goes on to say, as a reason for disusing the terms, that "their meaning is not fixed or capable of being so. One degree, thus described, not only may be confounded with another, but it is quite impracticable exactly to distinguish them. In *Briggs* v. *Taylor*, 28 Vt. R. 180, a case in which a law officer was charged with negligence in the care of certain vehicles, he held under an attachment, Mr. Chief Justice REDFIELD said that "these terms, 'ordinary and common care, and diligence, and prudence,' might not always mislead a jury. But it seems to us, they are somewhat calculated to do so. If the object be to express the medium of care, and prudence among men, it is certain these terms do not signify a fixed quantity of mediocrity even." In the same case he

cites several English cases. Thus in *Duff* v. *Budd*, 3 Brod. & Bing. 177, DALLAS, Ch. J., lays down the rule to the jury in these words: "Gross negligence is where the defendant or his servants have not taken the same care of the property as a *prudent man would have taken of his own.* The same doctrine is enunciated in *Riley* v. *Horne*, 5 Bing. 217; *Batson* v. *Donovan*, 4 Barn. & Ald. 21. In *Wyld* v. *Pickford*, 8 M. & W. 443, Baron Parke seems to claim a distinction between gross negligence and ordinary neglect, but admits that ordinary neglect may be correctly defined in the above cases. In *Wilson* v. *Brett*, 11 M. & W. 113, Baron ROLFE says: "I said I could see no difference between *negligence* and *gross* negligence; that it was the same thing with the addition of a vituperative epithet. There is a tendency in both the English and American courts, lately, to repudiate the use of the terms."

Mr. Justice BRADLEY (*N. Y. C. R. Co.* v. *Lockwood*, U. S. S. C., Oct. Term, 1873) says, if the courts "seek to abolish the distinction of degrees of care, skill, and diligence required in the performance of various duties, and the fulfilment of various contracts, we think they go too far; since the requirement of different degrees of care in different situations is too firmly settled and fixed in law to be ignored or changed. The compilers of the French Civil Code undertook to abolish these distinctions, by enacting that "every act whatever, of man, that causes damage to another, obliges him by whose fault it happened to repair it." . . . . "But such an iron rule is too regardless of the foundation principles of human duty, and must often operate with great severity and injustice. In the case under consideration, the law fixed the degree of care and diligence due from the railroad company to the person carried on its trains; it was unnecessary to tell the jury whether, in the language of law writers, such negligence would be called gross or ordinary."

In pleadings where the averment of negligence is sufficient to admit of proof of *gross* negligence, the disuse of the terms is well enough; but that there are, in reality, different degrees

of negligence, seems consistent with common sense, hence the civil law affirms it.

For instance, a surgeon is called to a patient with a fractured leg. He dresses the leg with a flimsy piece of pasteboard, and sees the man no more. When the bone has united, it is found that the limb is badly deformed, and is in a measure useless. This should certainly be considered "gross" negligence. Or he dresses it with appropriate splints, and fails to visit his patient for forty-eight hours, during which time, from the severity of the injury, there has been developed an extensive inflammation, perhaps of an erysipelatous character, requiring the removal of all mechanical appliances, and as a result there follows deformity and loss of function, as before. This certainly was not "gross" negligence; the very nature of the injury, or the peculiar condition of the patient's system at the time, may have hastened the unfortunate consequence; and this the surgeon, unable to prognosticate, has failed, as surgeons fail repeatedly, to remedy, by a visit made a few hours earlier. It is an "ordinary" negligence. Or he dresses the limb skilfully, with the proper appliances, has made all the visits the case demanded, but he failed or neglected on several consecutive occasions to unwrap the limb, and when finally he does so, he finds that the point of one of the fragments has ulcerated through the soft tissues, making an external sore, which takes on an erysipelatous character, leading to the same unfortunate result as before. So far as the patient is concerned the damage is alike in each. Neither the common law nor common sense would ascribe to the surgeon the same degree of negligence in the three hypothetical cases. The first was "gross," the second "ordinary," the last a slight negligence. All that is required of the bailee, is that he "proportions his care to the injury or loss which is *likely* to be sustained by any improvidence on his part." Story on Bailment, § 15. For fear that these distinctions would not be made by the jury, where disputes have arisen between lawyers and clients, and between physicians and patients, courts have repeatedly

charged that the defendant in such an action is only liable for *crassa negligentia*, as in *Purves* v. *Landell*, 12 Clark & Fin. 91, where Lord BROUGHAM said: "It is the very essence of this action that there should be negligence of the *crass* description, which we call *crassa negligentia* ; that there should be *gross* ignorance ; that the man who has undertaken the duty of an attorney, or a surgeon, or of an apothecary, as the case may be, should have undertaken to discharge a duty professionally, for which he was very ill qualified, or if not ill qualified to discharge it, which he had so negligently discharged as to damnify his employer, or deprive him of the benefit which he had a right to expect from the service." In the case of attorneys alone, even greater liberality is shown. In the same case Lord CAMPBELL said: "If an attorney acts honestly and to the best of his ability, he is not liable. Ordinarily, however, reasonable skill constitutes the measure of his engagement." See *Shilcock* v. *Passman*, *supra*.

7. To determine the question of negligence, we have only to place ourselves in the position of the person whose acts we judge, and further to determine the measure of care and diligence, "it is necessary to distinguish, first, between the obligations of persons who do, and of those who do not, stand in peculiar relations to one another." While it is incumbent on every one who undertakes, for or without a reward, to take care of any pledge or perform any duty or labor, to use in its performance such care as men of common sense and common prudence, however inattentive, ordinarily take of their own affairs; yet if the service be gratuitous, he will be liable only for bad faith or gross negligence, which is an omission of that degree of care; if on the other hand a reward or fee is received or expected, then a greater degree of diligence is exacted. Story on Bailment, §§ 174–5 ; 2 Hawk. N. C. R. 145 ; 2 Kent Com. 568–573 ; *Skelley* v. *Kahn*, 7 Peck (Ill.), 170.

8. The law implies, therefore, a contract, on the part of medical men, whether the service rendered be gratuitous or not, to discharge the duty in a skilful and attentive manner,

and the law will redress the party injured by their neglect. If the service is performed out of pure favor and with the consent of the patient, the physician is engaged for only slight care and diligence,[1] but to the exercise of this degree he is firmly held. The person receiving such gratuitous service is then bound to exercise the highest degree of care.

In estimating the degree of care exacted of the physician, the condition of the patient is an important factor. To revert to my former illustration: in one patient there is but a simple fracture; in the second, the fracture is compound; in the third it is comminuted, and the limb, besides, is the seat of an erysipelatous inflammation at the time of the injury. Now if the surgeon should give to the simple fracture the same amount of care that the comminuted and erysipelatous limb demands, he would give it extraordinary care, and would render himself liable to the charge of amplifying needlessly about the limb, and probably for a mercenary purpose. He would have accomplished his duty when he had properly dressed the limb and had seen it again on the second or third day. In the compound case, he should see the patient on the first or second day. In the comminuted and complicated case, his duty would require him to see the limb perhaps in the course of a few hours from the first dressing. When he has done so, at least so far as the visits are concerned, he has fulfilled the law as laid down by SHEPLEY, J., in *Odlin* v. *Stetson*, 17 Maine, 244: "When a person offers his services to the public in any business, trade, or profession, there is an implied engagement with those who employ him, that he will perform the business intrusted to him, faithfully and diligently.

9. In respect to human life, the law has so high a regard for it, that it will not impute negligence to an effort to preserve it, unless the effort is made under such circumstances as to constitute *recklessness*, in the judgment of prudent per-

[1] "A person who undertakes to do an act without reward or consideration is not amenable for omitting to do it, even though special damages are averred." *Thorn* v. *Deas*, 4 J. R. 84.

sons. "Although exposure to injury for the purpose of saving property is negligence, for the purpose of saving human life it is not so, unless such is regarded rash or reckless. *Eckert* v. *Long Island R. R. Co.*, 43 N. Y. 502. Therefore, providing a surgeon acts according to the rules of his art, he incurs no responsibility, whatever may be the result of his operation; and even if it may be asserted that such operation, executed more skilfully, might prove more advantageous or less mischievous to the patient. Pushing medical responsibility beyond certain limits, would be only to deprive patients of the succor of art, precisely at the moment when they have the most urgent need for it. For when a serious accident calling for immediate aid occurred, no surgeon would venture to operate upon the patient, in fear that if in spite of his efforts the results proved unfortunate, he might be himself accused of having occasioned them; and no one would act without consultation, giving rise to loss of precious time and the production of irreparable mischief.

10. In determining what constitutes negligence in Medicine, the improvements that have taken place in its several departments, and which are still constantly taking place, are always taken cognizance of. Thus many forms of dressing in surgical cases, which a few years ago were thought to be the summit of perfection, if applied now by a surgeon would be considered culpable negligence in him. Such, doubtless, will be the verdict a few years hence in respect to the use of the double-inclined plane, in the treatment of fractures of the lower extremity. *Cleveland* v. *Spier*, 16 C. B. (N. S.) 399, cited in Shearman & Redfield on Negligence, is an analogous case. "The defendants' servant was employed in making an opening into a gas main in a thoroughfare, using for the purpose a 'diamond point' chisel, which caused particles of iron to fly off, and thereby endangered passers-by. A less dangerous mode of doing the work would have been by drilling or screening. A piece of iron was chipped off and struck the plaintiff in the eye and injured him. *Held*, that the fact that the accident would have been avoided by drilling

or screening was evidence of negligence; and therefore, that the defendant was liable."

In closing the decision in *N. Y. C. R. R. Co.* v. *Lockwood*, *supra*, the court goes on to say: "In deciding whether any party has been negligent, if there is any conflict in the testimony, and, ordinarily, when there is not, all the facts and circumstances of the case should be submitted to the jury, with instructions that in deciding whether the party was in the exercise of ordinary care, or was grossly negligent, they are to consider the position of the party, his business, his duties and responsibilities; and that the same act or omission which, under some circumstances, would not show any degree of negligence, might under others show want of ordinary care, and under still different circumstances, might show gross negligence; and the question should be settled by the jury as a question of fact, and not by the court as a question of law. Hence the absurdity and injustice of assuming any test of negligence, or of contributory negligence, which is made to apply to all persons at all times, in all places, and under all possible circumstances, as certain, conclusive, and incontrovertible tests of such negligence."

CHAPTER XVIII.

CONTRIBUTORY NEGLIGENCE.

1. THE non-observance of certain duties incumbent on the patient, or upon those having charge of him, constitutes contributory negligence.

It is an established principle, under both the civil and common law, that to entitle a party to recover damages, alleged to have been sustained in consequence of the negligence of another, there must not only be negligence in fact, but it must have been the *proximate* cause of the injury. In this connection, the term "proximate" does not mean the first or nearest in the order of time, but the first or nearest in the order of cause. Cases have been repeatedly reversed where this distinction has not been observed. *Chicago, &c., R. Co.* v. *Goss*, 17 Wis. 428.

The difficulty lies usually, as in the case just cited, in separating the "*proximate*" from the "*remote*" cause. The court of original jurisdiction held that Goss, in permitting "his cattle to run at large in the vicinity of the railroad, was only guilty of *remote* negligence." This was considered erroneous by the appellate court. It decided that the permission to run at large in the vicinity of danger was the *proximate* cause of the injury, and therefore remanded the case for a new hearing.

2. In suits where negligence is alleged, "ordinary" care is required of the plaintiff. What this is has been defined to be "that degree of care which persons of ordinary care and prudence are accustomed to use and employ under similar

circumstances." *Cleveland, &c., R. R. Co.* v. *Terry*, 8 Ohio (N. S.), 570–581.

Thus, if a person having a broken arm dressed with an initial bandage, is requested by his surgeon to call in the course of a few hours, and fails to do so for several days, when gangrene has supervened, it would be a contributory negligence, for which he could hold no one justly responsible but himself. Or if he is requested to give notice of the dressing, or the other mechanical appliances becoming loosened or otherwise disturbed, and fails to do so, his failure, if injury resulted, would be looked upon as the *proximate* cause, and he could not recover.

"A surgeon assumes to exercise the ordinary skill of his profession, and is liable for injuries resulting from his failure to do so; and yet if his patient neglects to obey the reasonable instructions of the surgeon, and thereby contributes to the injury complained of, he cannot recover for such injury." *Geiselman* v. *Scott*, 25 Ohio (N. S.), 86–89.

The case cited *supra* was alleged to be one of malpractice in the treatment of a swollen ankle and diseased foot and ankle, by Dr. Scott. The court refused to instruct the jury as requested by the plaintiff. The instruction asked for ignored the doctrine of contributory negligence. The court gave the instruction modified as follows: —

"If you shall find that the defendant directed the plaintiff to observe absolute rest, as a part of the treatment to said foot, and that direction was such as a surgeon or physician of ordinary skill would adopt or sanction, and the plaintiff negligently failed to observe such direction, or purposely disobeyed the same, and that such neglect or disobedience approximately contributed to the injuries of which he complains, he cannot recover in this action, although he may prove that the defendant's negligence and want of skill also contributed to the injury. This grows out of the doctrine that a party, who has directly, by his own negligence or disregard of duty, contributed to bring an injury upon himself, cannot hold other parties, who have also contributed to the

same, responsible for any part thereof, nor does it make any difference that one of the parties contributed in a much greater degree than the other; the injured party must not have contributed at all."

The jury found for the defendant, and the case was appealed. The appellate court, RIX, J., said: "We are of opinion that the court did not err in so modifying the instructions, requested by the plaintiff, whether the action be regarded as based upon the implied contract of the surgeon or upon *tort*." *Leave refused.*

MCILVAINE, C. J., and WELCH, WHITE, and GILMAN, JJ., concurring.

Plaintiffs must use their own senses; as "where a person, on approaching a railroad crossing with a team, does not avail himself of his sight or hearing, where by the proper exercise of them he could have avoided a collision, he will be considered as unusually negligent on his part, though the bell was not continuously rung or whistle sounded." *Chicago & R. I. R. R. Co.* v. *McKean*, 40 Ill. 218.

3. Upon the question as to who shall sustain the burden of proof, when contributory negligence is inferred from any fact brought out during the trial, or when it is relied on as a defence, legal authorities differ widely. In Illinois, Indiana, Connecticut, Massachusetts, and Maine, it is held that the plaintiff must affirmatively prove he was not guilty of contributing to the injury. Thus in the *Aurora Branch R. R. Co.* v. *Grimes*, 3 Peck, 585, and in *Dyer* v. *Talcott*, 6 Peck, 300, "it is incumbent upon a party seeking to recover damages for a loss which has been caused by negligence, not only to prove the negligence of the defendant, but also to show that his own misconduct has not concurred in producing the injury complained of; and if it should appear that both parties are equally in fault, the aggrieved party cannot recover." See also *Galen, &c., R. Co.* v. *Fay*, 6 Peck, 558.

The Supreme Court of Indiana (*Evansville & Crawfordsville R. R. Co.* v. *Hiatt*, 17 Ind. 102) held, "that the complaint must aver the plaintiff's freedom from negligence." *Contra*, see *Scudder* v. *Crosson*, cited herein.

In *Smith* v. *Smith*, 2 Pick. 621, the court says that "the action cannot be maintained for negligence, unless the plaintiff can show that he used ordinary care, for without that it is by no means certain that he himself was not the cause of his own injury." In an action in tort or in contract, where negligence is alleged, the rule of duty is the same. *Eaton* v. *B. & L. R. R. Co.* 11 Allen, 500. See, also, *Merrill* v. *Hampden*, 26 Maine, 234; *Park* v. *O'Brien*, 23 Conn. 339; *Murphy* v. *Deane*, 101 Mass. 455.

"In an action whose *gravamen* is negligence, it is the duty of the plaintiff to show a case clear of contributory negligence. There must be then a *primâ facie* case resulting exclusively from the wrong of defendant, before he can be called to answer." *Waters* v. *Wing*, 59 Penn. St. 211.

The question is not yet definitely settled in the New York courts. Thus, in *Button* v. *Hudson River R. R. Co.* 18 N. Y. 248, the court declared that, "In an action of negligence, the burden is on the plaintiff to prove affirmatively that he is guiltless of any negligence *proximately* contributing to the injury. Such negligence is not to be presumed, and, therefore, direct evidence to disprove it is not required from the plaintiff, in the first instance; but where there is conflicting testimony as to the fact, the preponderance must be with plaintiff to enable him to recover." On the other hand, in *Benedetti* v. *Mauchin*, 1 Hilton, 213, it was held that "the burden lay upon the defendant to prove negligence on the part of the plaintiff."

4. In Iowa the doctrine of comparative negligence is discarded; that of contributory negligence prevails. In an action for personal injuries, the court instructed the jury that defendant was liable for his negligence, unless they found that plaintiff was "equally guilty with defendant." *Held*, "that the instruction was erroneous as announcing the doctrine of comparative negligence." *Johnson* v. *Tillson*, 36 Iowa, 89; *Baird* v. *Morford*, 29 Iowa, 531.

It is generally presumed that "a man is bound, no matter in what he may be engaged, to use ordinary care for his own

protection," and therefore when contributory negligence is relied on as a defence, the defendant must be prepared to prove that the plaintiff did not exercise ordinary care. In most cases, if the question arises at all, the defendant must affirm it, and then the burden is on him to furnish the proof. "*Ei incumbit probatio qui dicit, non qui negat.*" In *Johnson* v. *Hudson River R. R. Co.* 20 N. Y. 65, DENIO, J., said: "The true rule, in my opinion, is this: The jury must eventually be satisfied that the plaintiff did not, by any negligence of his own, contribute to the injury. The evidence to establish this may consist in that offered to show the nature or cause of the accident, or in any other competent proof. To carry a case to the jury, the evidence on the part of the plaintiff must be such as, if believed, would authorize them to find that the injury was occasioned solely by the negligence of the defendant. It is not absolutely essential that the plaintiff should give any affirmative proof touching his own conduct on the occasion of the accident. The character of the defendants' delinquency may be such as to prove, *primâ facie*, the whole issue; or, the case may be such as to make it necessary for the plaintiff to show, by independent evidence, that he did not bring the misfortune upon himself. No more certain rule can be laid down."

5. The doctrine that, in case of an injury by negligence, where the parties are *mutually* in fault, the injured party is not entitled to redress, is subject to certain qualifications: viz., "The injured party, although in fault to some extent at the time, may, notwithstanding this, be entitled to reparation in damages for an injury which he has used ordinary care to avoid; and when the negligence of the defendant is the *proximate* cause of the injury, but that of the plaintiff only the *remote* cause." *Kerwhaker* v. *Cleveland, &c. R. R. Co.* 3 Ohio, N. S. 172. "Where an injury happens to a party *proximately* through his own wrong, he cannot recover; but where such injury happens by the proximate wrong of another, he should be liable, though the remote negligence of the injured party may have contributed to produce it." *Indianapolis &*

Cincinnati R. R. Co. v. *Caldwell*, 9 Ind. 397. Thus, "where a party has been injured by a collision upon a public highway, he cannot maintain an action if the facts show that he has in any manner, by his own carelesness or neglect, contributed to or caused the injury of which he complains." *Morris* v. *Phelps et al.* 2 Hilton, 38; *Cox* v. *Westchester Turnpike Road*, 33 Barb. 414. "It is enough to defeat the plaintiff, if the injury might have been avoided by his exercise of ordinary care;" Shearman & Redfield on Neg. § 34; unless it is shown that there has been wanton or wilful or gross negligence on the part of the defendant. *Chicago & Miss. R. R.* v. *Patchin*, 6 Peck, 198. "Though a defendant has been guilty of culpable fault or negligence, producing an injury, yet if his act was not wanton and intentional, and the plaintiff by his own misconduct, or want of ordinary care, essentially contributed to produce the result, he cannot recover." *Birge* v. *Gardner*, 19 Conn. 507. "Slight negligence does not absolve defendant from use of care and all reasonable efforts to avoid injury." *St. L., A. & T. H. R. R. Co.* v. *Todd*, 36 Ill. 409.

This question is apt to arise under a diversity of perplexing forms. Thus, in *Chamberlin* v. *Morgan*, 68 Penn. St. 168, the defendant in error had judgment rendered against him for malpractice in the treatment of a dislocated joint. Some time after the attempted reduction Dr. Richardson was called in, who proposed to put the patient under the influence of an anæsthetic, and to attempt again the reduction. But the *prochein ami* replied, "that so long as she (the patient) was improving so fast as she had done since he came home, he should not have it disturbed." The court goes on to say: "Had Dr. Chamberlin proposed this experiment there might be some reason to hold that he should have the opportunity of redeeming his mistake, or even if he had called in Dr. Richardson to act on his behalf. Mr. Morgan merely requested Dr. R. to examine his daughter's arm and give his opinion about it. That did not oblige him to adopt his advice or to incur the hazard and expense of another operation. He owed

no such duty to Dr. Chamberlin. It was offered to prove that the injury could then have been reduced. But how was Mr. Morgan or Hattie to have known this? Had the experiment failed, it might well have been urged that as she was improving she ought to have been let alone, and that Dr. C. was relieved from all responsibility by the case having been taken out of his hands. Therefore the *judgment is affirmed.*"

The opinion was given by Sharswood, J., and it may seem presumption to call so eminent a court's decision in question; yet, in view of the very great difficulties under which surgeons labor, this is called for. The record does not give us all the facts of the case, but we may suppose that the swelling, &c., at the first attempted reduction was so great that a very experienced surgeon may have been in doubt as to whether a dislocation existed. The record does not say what joint was implicated, so we will hypothecate the case upon the shoulder or elbow. Now, after the swelling has subsided, the patient and her friends, exercising what is oftentimes improperly their right, send for another surgeon, and this simply for the purpose of getting an opinion, without any notice whatever given the first surgeon. It is simple injustice, which patients are constantly guilty of. The duty of the patient in such a case was to notify the first surgeon of counsel being desired in the case, when, if he had refused, they might have called in another surgeon. Having done so without such notification, the defendant in error should not have had the judgment affirmed against him, unless his negligence was wanton, gross, or wilful.

6. Inasmuch as the question is one to be first passed upon by the jury,[1] surgeons relying on it as a defence should insist, as in *Hibbard* v. *Thompson*, 109 Mass. 286, that the jury be instructed that, "if it be impossible to separate the injury occasioned by the neglect of the plaintiff from that occasioned by the neglect of the defendant, the plaintiff cannot recover." It is likely the court may add that, "if however they can be

[1] *St. L., A. & T. H. R. R. Co.* v. *Todd*, 36 Ill. 409; *City of Chicago* v. *Major*, 8 Peck, 349.

separated, for such injury as the plaintiff may show proceeded *solely* from the want of ordinary skill or ordinary care of the defendant he may recover," it will be a point of value; for it states the ordinary rule as to the negligence of the plaintiff; the second clause states the proper limitation of the rule. The court goes on to say of the second clause, " It is an important limitation; for a physician may be called to prescribe for cases which originated in the carelessness of the patient; and though such carelessness would remotely contribute to the injury sued for, it would not relieve the physician from liability for his distinct negligence, and the separate injury occasioned thereby." The same rule obtains if the injury results from the plaintiff's carelessness during treatment.

7. In respect to operations, surgeons are to remember that " evidence that the plaintiff requested the defendant to perform the act which caused the injury, does not tend to prove contributory negligence, if the injury was not a natural result of such act carefully performed." *Fisk* v. *Wait*, 104 Mass. 71. This principle may be usefully applied to some of the operations of complaisance such as are performed in contractions of the hand and foot. Thus an operation for the relief of contraction of the fingers, caused by rheumatism or as the result of a congenital vice, will be quite likely to deprive the patient of what little use he may have had of them. This occurs so frequently after such operations upon the tendons of the fingers, that it may be said to be the natural result of the operation. Of this fact the patient should be informed. If the patient then requests the operation he is guilty of a fatal contributory act. On the other hand, such unfavorable results follow so seldom after tenotomy of the lower extremity, the request of the patient to have the operation performed would not be contributory negligence.

So, too, the removal of a staphyloma is always followed by a total loss of sight; but if the patient requests the operation he cannot then hold the surgeon responsible for the loss, unless proof is offered that the defendant's negligence was gross, wanton, or wilful.

8. The general rules bearing upon contributory negligence admit of several exceptions and qualifications, chief among which are those relating to whom they may not apply. As a general rule, contributory negligence is not imputable to insane persons, nor to persons distracted by sudden terror, drunkards, and persons who, from their tender age, are not capable of exercising a proper discretion. In such cases, "if the defendant is guilty of gross negligence, he cannot set up a trifling negligence or inadvertence of the plaintiff as a defence." Wharton on Negligence, §§ 300, 301.

In *The Illinois C. R. Co.* v. *Hutchinson*, 47 Ill. 408, it is laid down that even an intoxicated man is not excused from the use of care for his own protection; yet some doubt was expressed as to the degree required of him in that case.

In respect to infants, his honor Judge McAllister, to whom I am indebted for many of the principles presented in this connection (*The Chicago, &c. R. R. Co.* v. *Becker*, 76 Ill. 25, Legal News, Sept. 11, 1875), after quoting from Wharton the list of those persons to whom such negligence is not imputable, says: "By the general term 'infants,' as one of the class to whom contributory negligence would not, as a rule, be imputable, the author, as appears by the context, does not mean that all persons under lawful age are to be understood as belonging to such class, but only those who, from their tender age, are wanting in the requisite capacity to exercise discretion. Whether the question of the capacity of children of observing and avoiding danger be considered with reference to contributory negligence on the part of the child injured, or of parents or guardians, it is obvious that no definite rule of law can be laid down which should interfere with the jury, judging each case on its own merits, and by its particular circumstances. If the child, from its age and experience, be found to have capacity and discretion to observe and avoid danger, it should be held responsible for the exercise of such measure of capacity and discretion as it possesses. The question is similar, and to be determined by the jury in the same way, from facts and circumstances in evi

dence, as where the capability of an infant, under the age of fourteen years, to commit crime, is involved in a criminal prosecution at common law against such infant. On the attainment of fourteen years of age, the criminal actions of infants are subject to the same modes of construction as those of the rest of society; for the law presumes them at those years to be *doli capaces*, and able to discern between good and evil. But there is no inflexible rule which governs where the question arises in civil cases whether contributory negligence is imputable. As stated above, it is in each case a question for the jury, to be determined upon the particular circumstances in evidence." The judgment was reversed and the cause remanded, because the court below had instructed the jury "that the law does not require that a boy of six or seven years of age should exercise that degree of diligence that would be required of a grown person. The court therefore instructs the jury, that although they may believe, from the evidence, that the deceased, Frederick Becker, was guilty of a slight degree of negligence, yet if the jury further believe, from the evidence, that the defendant was guilty of gross negligence and thereby caused the death of said Frederick Becker, the jury should find the defendant guilty, and assess such damages as they believe would be right."

In this the court assumed a fact which it was the function of the jury to pass upon, and therefore, for this error and others, the judgment was reversed.

If the child in this case had no discretion, the parents or guardians certainly were guilty of culpable negligence in permitting him to be in the way of danger. So, too, a child with a broken arm, if permitted by the parents or guardians to let his arm hang down, after it has been snugly dressed by the surgeon, instead of keeping it suspended in a sling, arranged by the surgeon for that purpose, and an erysipelatous inflammation should follow from the engorgement of the hand and arm that would necessarily attend such a position of the arm, should not recover in a suit for damages.

The doctrine of contributory negligence has had a great many interpretations, being one upon which supreme courts are called upon at every term to pass. The decisions are pretty uniform that no action can be maintained unless the carelessness of the defendant is of such a gross character as to savor strongly of malicious, vicious, or criminal intent.

CHAPTER XIX.

NEGLIGENCE OF PHYSICIANS AND SURGEONS.

1. A PHYSICIAN or surgeon attending gratuitously is liable for gross negligence only; Shearman & Redfield on Neg. § 432; but it does not relieve from a reasonable degree of care. *Shiells* v. *Blackburne*, 1 H. Black. 159; *Nelson* v. *Macintosh*, 1 Starkie, 188; *Wilson* v. *Brett*, 11 M. & W. 113; *Pippin* v. *Sheppard*, 11 Price, 400; *Gladwell* v. *Steggall*, 5 Bing. N. C. 733. "The less the payment made in return for diligence, the less the diligence that is expected; and if no payment at all is made, as little diligence as possible is usually expected, though it may be that some is." Amos, Science of Law.

2. A physician may contract to perform a cure absolutely, but the law will not imply that such a contract follows his mere employment. In *McCandless* v. *McWha*, the court of original jurisdiction assumed that the defendant was bound to effect a perfect cure; but the appellate court repudiated this doctrine, and stated the implied contract to be "to treat the case with diligence and skill." The diligence and skill required are reasonable or ordinary diligence and skill, such as are manifested or possessed by the profession as a body, not the highest degree, not that degree which is possessed only by the most eminent of the profession. *Reynolds* v. *Graves*, 3 Wis. 416; *Patten* v. *Wiggin*, 51 Maine, 594; *Landon* v. *Humphrey*, 9 Conn. 209; *Wood* v. *Clapp*, 4 Sneed, 65; *Carpenter* v. *Blake*, 60 Barb. 488; *Bellinger* v. *Craigue*, 31 Barb. 534; *Briggs* v. *Taylor*, 28 Vt. 180; *Lanphier* v. *Phipos*, 8 Carr. & P. 475; *McNevins* v. *Lowe*, 40

Ill. 209; *Tefft* v. *Wilcox*, 6 Kansas, 46; *Smothers* v. *Hanks*, 34 Iowa, 286; *Rich* v. *Pierpont*, 3 Fost. & F. 35.

3. Honesty on the part of the practitioner is all that is required to release him from the responsibility for want of skill; but a person not being a regular practitioner, assuming to practise as such, will be held responsible for any injury caused by his ignorant presumption. *Ruddock* v. *Lowe*, 4 Fost. & F. 519; *Rex* v. *Van Butchell*, 3 Carr. & P. 629. See also *Rex* v. *Simpson*, "where professional aid might be obtained," (cited herein).

4. "Common sense and universal experience prescribe some invariable rules, the violation of which may generally be called gross negligence." S. & R. on Neg. § 437. Thus a failure to remove the placenta is gross negligence; *Lynch* v. *Davis*, 12 Howard Pr. 323; unless it is according to the practitioner's "school." *Bowman* v. *Wood*, 1 G. Greene (Iowa), 441.

5. Legal writers (Shearman & Redfield on Neg. § 439) generally assume, "that a physician about to administer an anæsthetic is bound to inform himself as to the condition of the patient's heart, lungs, or other organs, which, if diseased, would warn a prudent physician against the administration of that beneficent agency;" by which we are to infer that a physical examination should be resorted to, for the purpose of determining this matter. There are many circumstances in which time would not permit such examination; indeed, the physical signs contra-indicating the use of the anæsthetic are not always made out with positiveness by practitioners of more than ordinary skill; or in other words, the signs pointing to different organic lesions are so numerous, and occur so infrequently, the ordinary practitioner would generally not be able to apply their presence satisfactorily to many cases. It is very true that a momentary application of the ear to the chest, and the touch of the finger to the pulse, will determine whether the heart is acting normally, and, combined with palpation, will determine whether the lungs are acting healthfully; but there are other

signs, to be appreciated at a moment's glance, in the most of patients, that will call attention to whether the patient should or should not receive a more attentive physical examination before the administration of the anæsthetic. The danger of anæsthetics is very much overrated, not near so many dying from the use of these agents as, doubtless, died before their use from the shock following the operation; besides this, of those who die while under the influence of an anæsthetic, the cause of death is rarely such as could be discovered by an *ante-mortem* examination. These patients die of epileptic convulsions (Broca, Gazette des Hôpitaux), of which the surgeon would gain no knowledge by a physical examination, nor would it contra-indicate the use of the anæsthetic if he did; or they die of syncope (Loundes, Brit. Med. Jour. May 9, 1868), the tendency to which would not be discovered by a physical examination; or they die of spastic contraction of the heart, from loss of blood (Bilroth, Brit. Med. Jour. June 13, 1868); or from convulsions, resulting from fatty degeneration of the heart, in which the stethoscope revealed no sign of this disease (Brit. Med. Jour. July 25, 1868); or from syncope, from exudation beneath the arachnoid, the heart and lungs being healthy, where only a *post-mortem* did and in which an *ante-mortem* examination could not reveal the true cause of death (Humboldt, Med. Archives, Nov. 1868); or of convulsions, where the *post-mortem* showed all the organs healthy (Med. News and Library, June, 1866). Deaths under anæsthetics may be arranged under three heads: those in which the anæsthetic had no effect whatever, the patient dying under but not through the anæsthetic, or from some circumstance accompanying or preceding the operation; those in which the anæsthetic acts *mediately*, that is, through the escape of blood into the windpipe during operations on the throat or about the mouth; and third, those in which the death is directly attributable to the anæsthetic, in which the pathology cannot be made out before death. We hold, therefore, that for the above reasons, and we will be sustained by surgeons generally,

the examination referred to by legal writers is unnecessary, and is only called for in exceptional cases, such as would be known by their general physical characteristics. In giving anæsthetics, especially chloroform, the physician should place the patient in a recumbent posture, and see that there is no constriction from the clothing about the throat, chest, and abdomen. The patient should not take anything into the stomach for some hours previous to the use of the anæsthetic, unless in very small quantity.

Especial care should be taken never to administer an anæsthetic to a woman, except in the presence of another or in the presence of her immediate relatives. The case that first called attention to the importance of this rule is referred to in Wharton & Stillé's Med. Jurisp., vol. 2, part I. §§ 245–248, where much of the evidence of the prosecuting witness may be found. From a published account of the trial and conviction of the defendant, Dr. B., we learn that ether was given for the purpose of obviating pain in the extraction of a tooth. Subsequently a most atrocious charge was preferred against him. Upon this he was tried, no witness appearing but the plaintiff, and on her testimony alone, he was convicted by a jury, one of the members of which, it is said, remarked before he had heard a word of the defence, "D—n him, he is a guilty fellow; we'll sweeten him."

Immediately after the charge was made, the defendant urged that Dr. H., the family physician, and Dr. J. K. M—l, should institute an examination, that by this means the falsity of the charge might be made manifest. But as in *Walsh* v. *Sayre*, this personal examination, so vital to the interest of the defendant, was resisted. It was then proposed that Dr. H. and *any* physician he might choose to select, should do this thing. This also was refused. Finally, it was proposed that Dr. H. alone should make an examination. This too was rejected. No "precedent" had yet been established compelling a personal inspection.

At the time, the correctness of the verdict was much doubted, and upon this ground a pardon was subsequently granted.

A case similar to the foregoing is reported in the Western Jurist for November, 1874. The salient points of the evidence in the case is appended, to show, among other things, that the ordinary petit jury is entirely incompetent to try issues in matters of science, especially in matters pertaining to medical science.

"The prosecutrix was a robust and healthy girl. Age seventeen years. Slept with a daughter of the defendant, about of same age; in an adjoining room south, there lodged a man and his wife, and in the adjoining room west, with an unfastened door between, there lodged the defendant and other persons in other beds; that she retired about ten o'clock, P. M., and after a short time fell asleep; that during the night the defendant made an assault upon her, removing her from the bed for that purpose; that he said to her he was Dr. G. (the defendant); that she tried to force him away but could not; that she experienced a ringing sensation in the head, felt weak, drowsy, and sleepy, but did not sleep any more that night; that the ringing in the head lasted a day or two; that the assault was committed on the night of June 23, 1857; that she told no one of the occurrence until about the last of December, 1857, and that although awake during the remainder of the night upon which the assault was made, she made no outcry. She gave birth to a child on the 26th March, 1858. She first thought there had been two assaults and had told others so, but, on reflection, was sure that there was but one. She never saw chloroform before, but smelled it on the trial and believes the smell to be like that she experienced on the night of the 23d of June. She weighs one hundred and thirty pounds, was in good health, and had always enjoyed good health. Did not smell medicine when first awake, but did after defendant left her room, in about six minutes, &c., &c.

"The defendant was a physician. His daughter, a highly intelligent young lady, with whom plaintiff slept, swears that *she* (the daughter) slept on the front side of the bed; was not disturbed in the night, and smelled no odor of medicine

of any kind; saw nothing unusual in the appearance of the prosecutrix next morning. The defendant was just recovering from a long and severe attack of phlegmonous erysipelas, the left hand very sore, and poulticed, the neck stiff and sore, and the right hand also sore and in ulcers. No one about the house heard any noise or disturbance during the night, after the parties had retired. The partitions between the rooms were of boards; had so shrunk that there were cracks between the boards of half an inch in width, — boards were one inch in thickness; had stood for twenty years; the bed was of ordinary size.

"Verdict of the jury, *Guilty;* motion for a new trial overruled.

"Motion in arrest of judgment continued to next term, by agreement of counsel."

And this is the boasted "trial by jury!"

6. In *Howard* v. *Grover*, 28 Maine, 97, the surgeon was held responsible for an *error in judgment*, but this is not the general rule. According to later authorities, the principle is that, "like an attorney," he "is not answerable in a given case for the errors of an enlightened judgment;" that is, if he is ordinarily intelligent in his profession, he is not responsible, except he should try *experiments* to his patient's damage. *Carpenter* v. *Blake*, 60 Barb. 488; *Tefft* v. *Wilcox*, 6 Kansas, 46; *Patten* v. *Wiggin*, 51 Maine, 594; *Slater* v. *Baker*, 2 Wilson, 359; *Rex* v. *Long*, 4 Carr. & P. 423; *Rex* v. *Martin*, 3 Ibid. 211; note 4; Sharswood's Black. b. iii. p. 25.

7. If the services rendered are gratuitous, and the physician wishes to leave the case, he must give "reasonable notice;" if paid for, he must continue them "till the emergency he was called to meet is past." Shearman & Redfield on Neg. § 441.

8. The *onus probandi* in case of a suit against a physician or surgeon for negligence, is on the plaintiff. He must prove by a preponderance of evidence, not only the neglect, but also the want of skill, if that is alleged in the declaration. It

will not be proper for him to give evidence on any question of neglect or want of skill, unless it is already alleged in the preparatory pleadings. *Bemus* v. *Howard*, 3 Watts, 255; 1 Greenleaf on Evid. § 66. On the other hand, where the declaration alleges want of *possession* of skill rather than the neglect to *use* skill, the defendant may present evidence of his general skill, and where there is a doubt as to the skilfulness of his treatment in the case, this evidence will be useful; for if he shows he possesses it, it will be presumed he used it. If his general skilfulness is not called in question, he does not need to furnish such evidence, for if he does it will be refused as being incompetent. A certain course of treatment, approved by some surgeons, may nevertheless be condemned by a jury, if the weight of authority is against it. Too frequently, juries regard themselves as authority on surgical questions, and so make the testimony very preponderating in favor of the plaintiff.

9. It is the duty of the patient to conform to the necessary prescriptions of his physician, and if he will not, or, under the pressure of pain, he cannot, he has no right to hold his physician responsible. The defendant under all circumstances has a right to show that the habits of his patient, or that various constitutional diseases with which he may be afflicted, prevented or retarded recovery in a given case.

10. In *Simonds* v. *Henry*, 39 Maine, 155, the jury was instructed, that if the physician had used all the knowledge and skill to which the art of medicine had at that time advanced, that would be all that would be required of him. The appellated court said: "It is undoubtedly correct, that no more would be required of him. But upon legal principles could so much be required of him? We think not. If it could, then every professional man would be bound to possess the highest attainments, and to exercise the greatest skill in his profession. Such a requirement would be unreasonable.

"The instructions given were erroneous, and a new trial must be had.

"Exceptions sustained. *New trial ordered.*"

Prosecutions for malpractice occur so frequently, that no surgeon, however respectable or eminent, has the assurance, in all his cases, that he will receive either gratitude or reward from his patients; indeed, the more he is informed upon the history and calamities of surgery, the more he fears for the results of his surgical practice. On the other hand, it is very evident that the profession is crowded with incompetent and careless men, and these should be held responsible by the law; but, unfortunately for the profession, these are the ones that most frequently escape suits of this character.

To avoid the annoyance of such suits, surgeons should above all things be *honest* with their patients, apprising them of the difficulties of the case, and the uncertainty of perfect results. They may do this without being "forward to make gloomy prognostications." They should be "candid in regard to their deficiencies, claiming no more than they can perform, no more knowledge than they possess; claiming no more for their art than belongs to it. Especially when acting as experts in courts of law, they should remember that other "surgeons set broken limbs as they write their names, after a fashion of their own," and that good results have and may be obtained by a variety of methods of treatment. So long as these are amenable to the rule of common sense, they should not be decried, as is too often the case.

Surgeons should look carefully to their appliances, instructing their patients and nurses as to their uses, remembering that they are not familiar with these things, hence, will need explanations and directions in plain English, and need them more than once. If anything arises that seems to them wrong, or which they do not comprehend, they should be instructed to give the surgeon instant notice.

When the patient has recovered so as to leave his bed, he should be directed to be careful of his limb, and give it some artificial support for some time after it is supposed to be cured.

If possible the surgeon should have one or more *disinter-*

ested witnesses present to observe his *omissions* and *commissions* and his reasons for the same. This can easily be done in cities, and most villages, but in the country it is quite different; yet here he can explain the case to the more intelligent friends and neighbors of the patient. Call attention to the fact that a fractured limb is not as marble or wood, to be adjusted and keyed, so as to remain immovably fixed during the process of repair; but that it is a living organ, endowed with nerves, and requiring constant nutrition, which may be fatally interfered with by bandages too tightly applied.

If after all this the annoyance of a suit should follow, get the best legal talent the country affords; seek for experts among *truthful*, *honest* physicians; secure men who are able in their profession, yet who are not ashamed to acknowledge the deficiencies of their art; see that your counsel comprehends the case; comprehend it yourself in all its details.

Under no circumstances should such suits be compromised. Surgeons, after performing their duty, owe it to their professional brethren to let the matter be tried by the letter of the law, trusting that if juries give unjust verdicts against them, judges, whose duties it is to review the case, and whose function is to sift evidence and to judge equitably, will probably remedy the evil, by remanding for a new trial, which if there be right on the side of the surgeon, is nearly equivalent to a verdict in his favor.

When there is a remedy provided for the defendants' costs in such suits, where plaintiffs fail to sustain their case, physicians will then have that protection in the performance of their arduous duties, which is justly and equitably their right.

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