

A letter to the Hon. Isaac Parker, chief justice of the Supreme court of the state of Massachusetts : containing remarks on the dislocation of the hip joint, occasioned by the publication of a trial which took place at Machias, in the state of Maine, June, 1824 / by John C. Warren ; with an appendix of documents from the trial necessary to illustrate the history of the case.

Contributors

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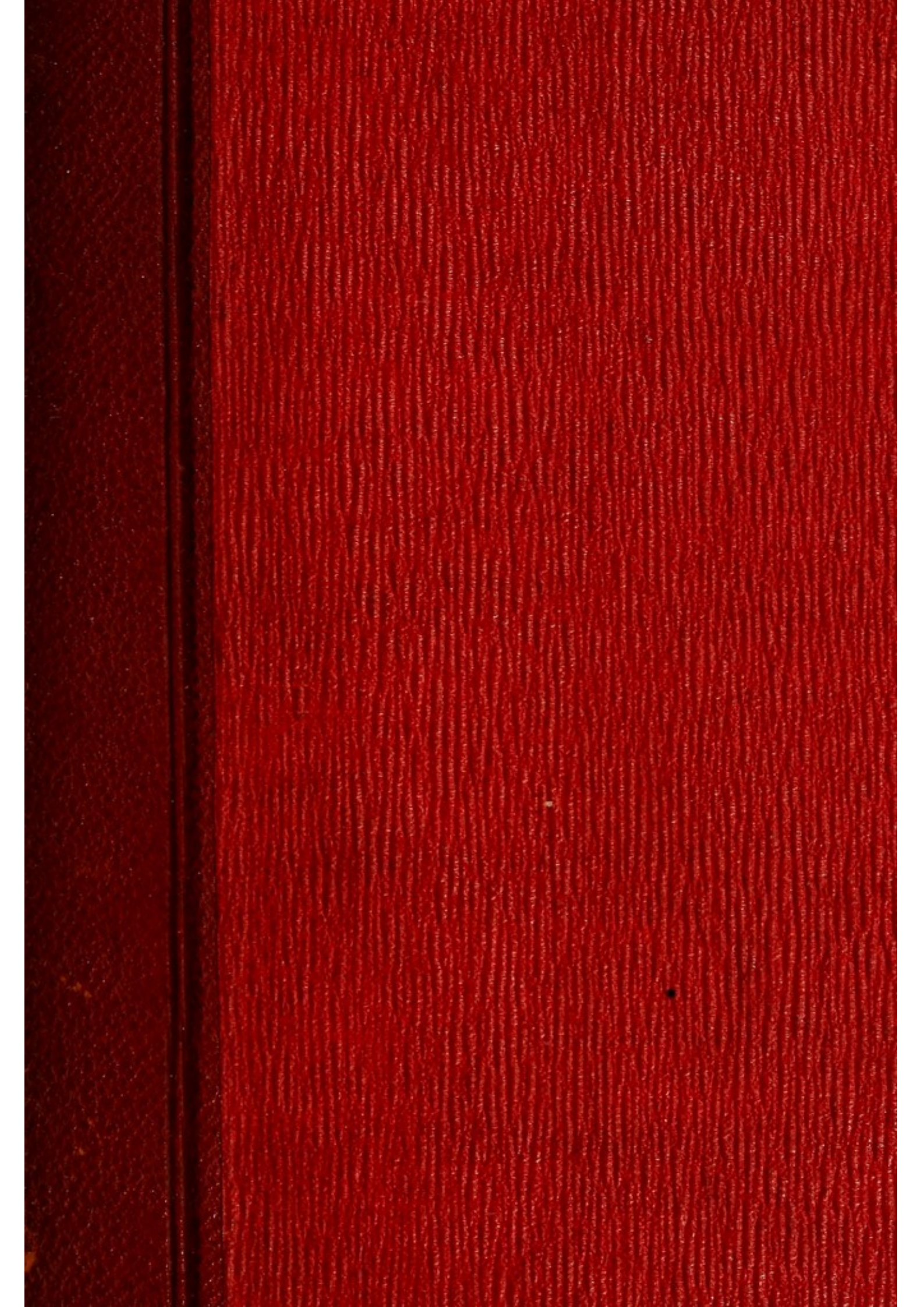
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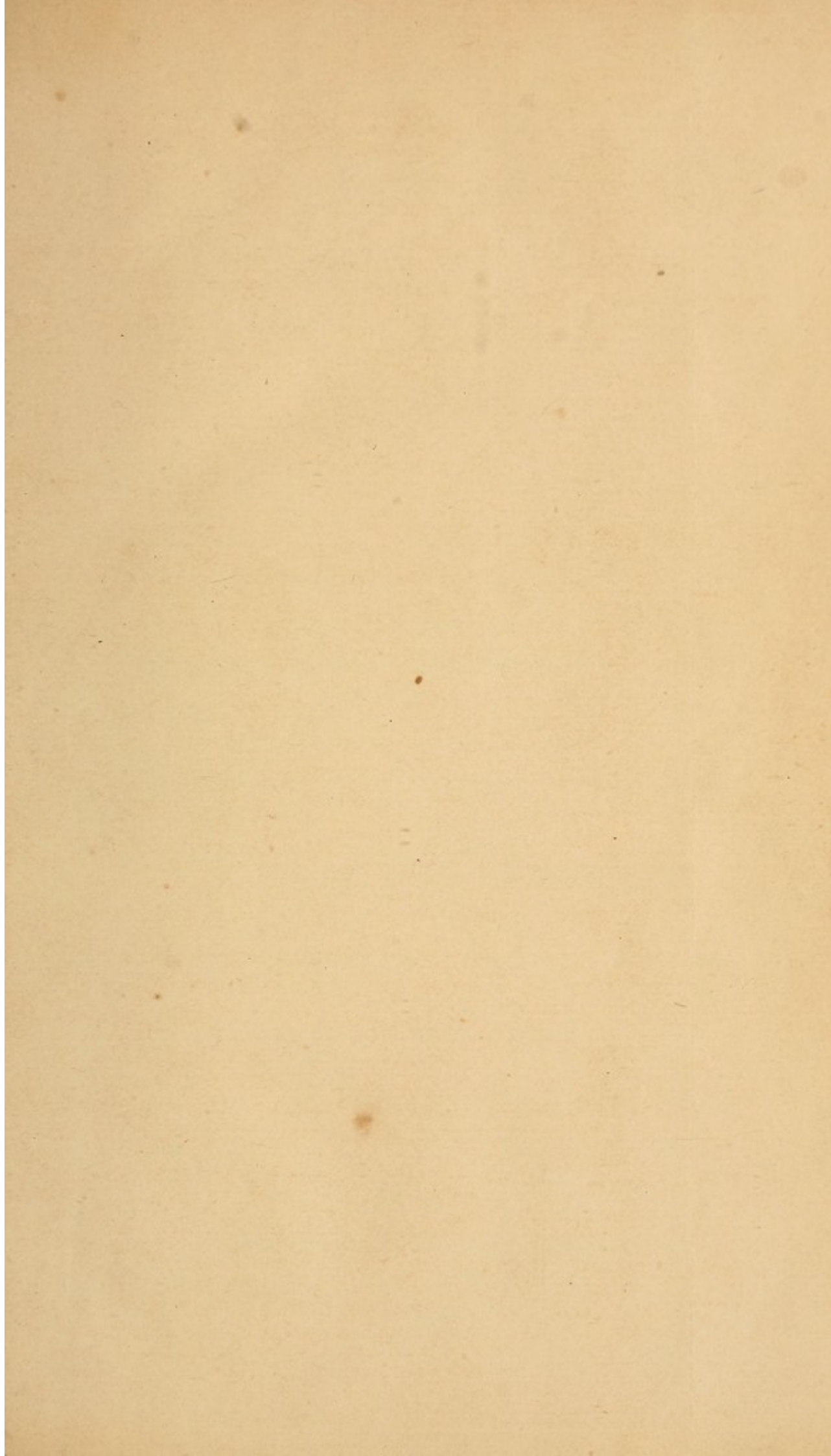


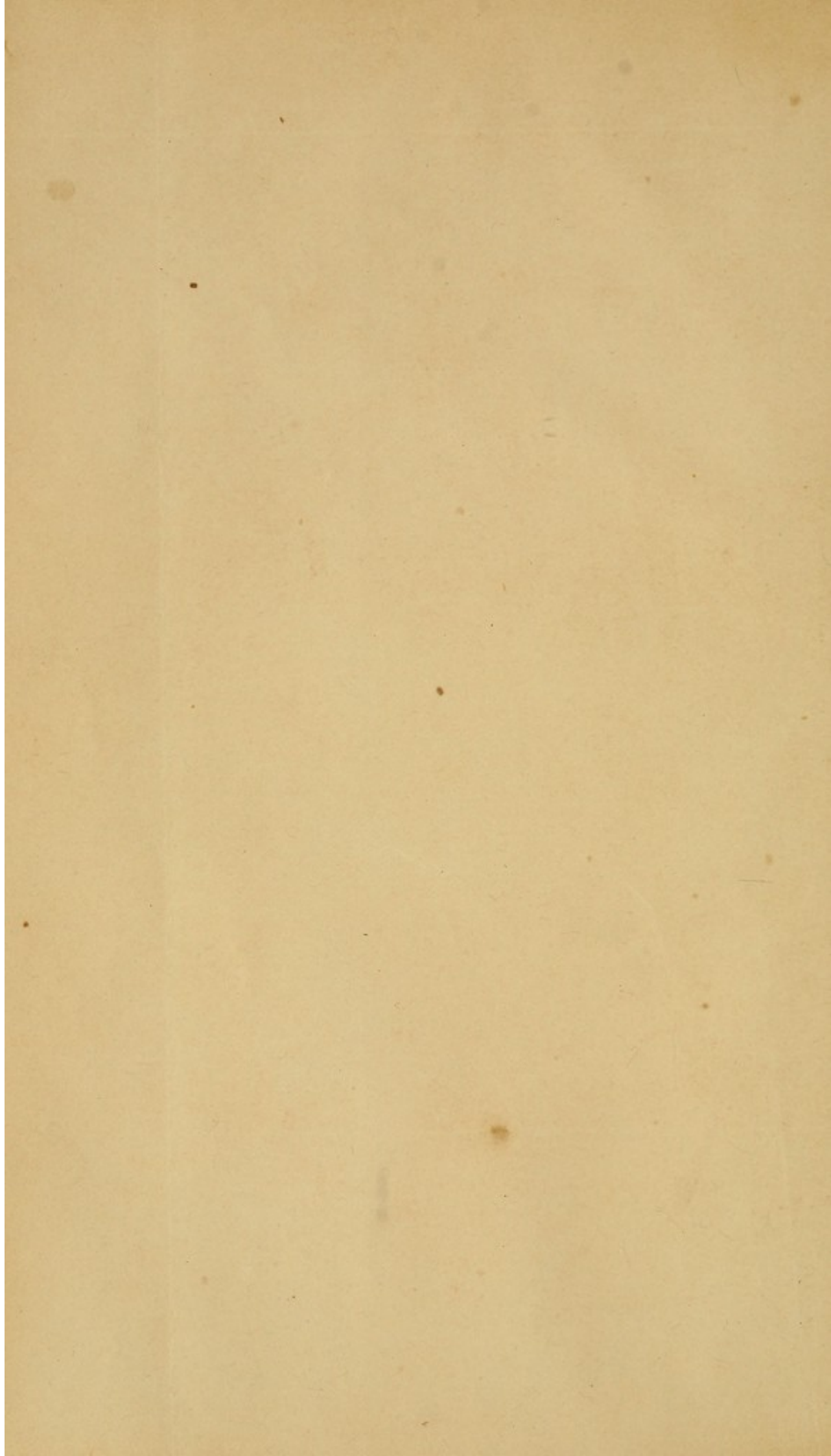
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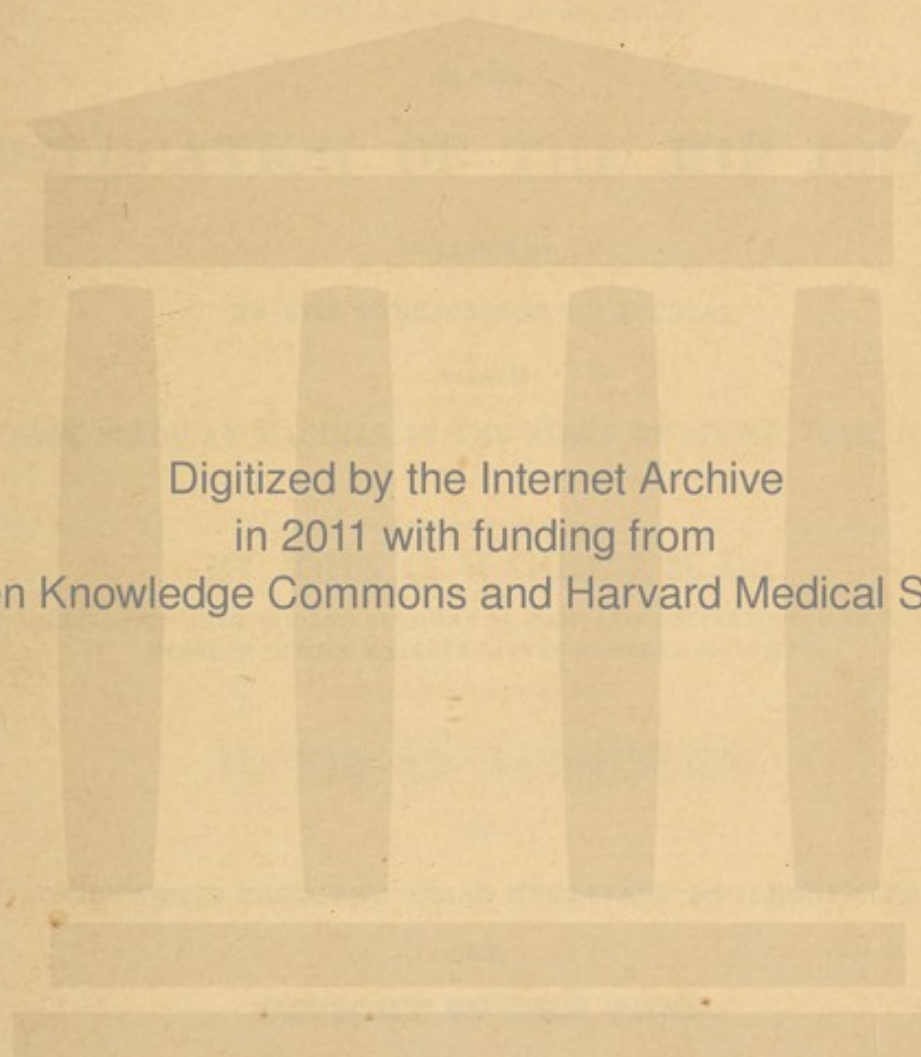
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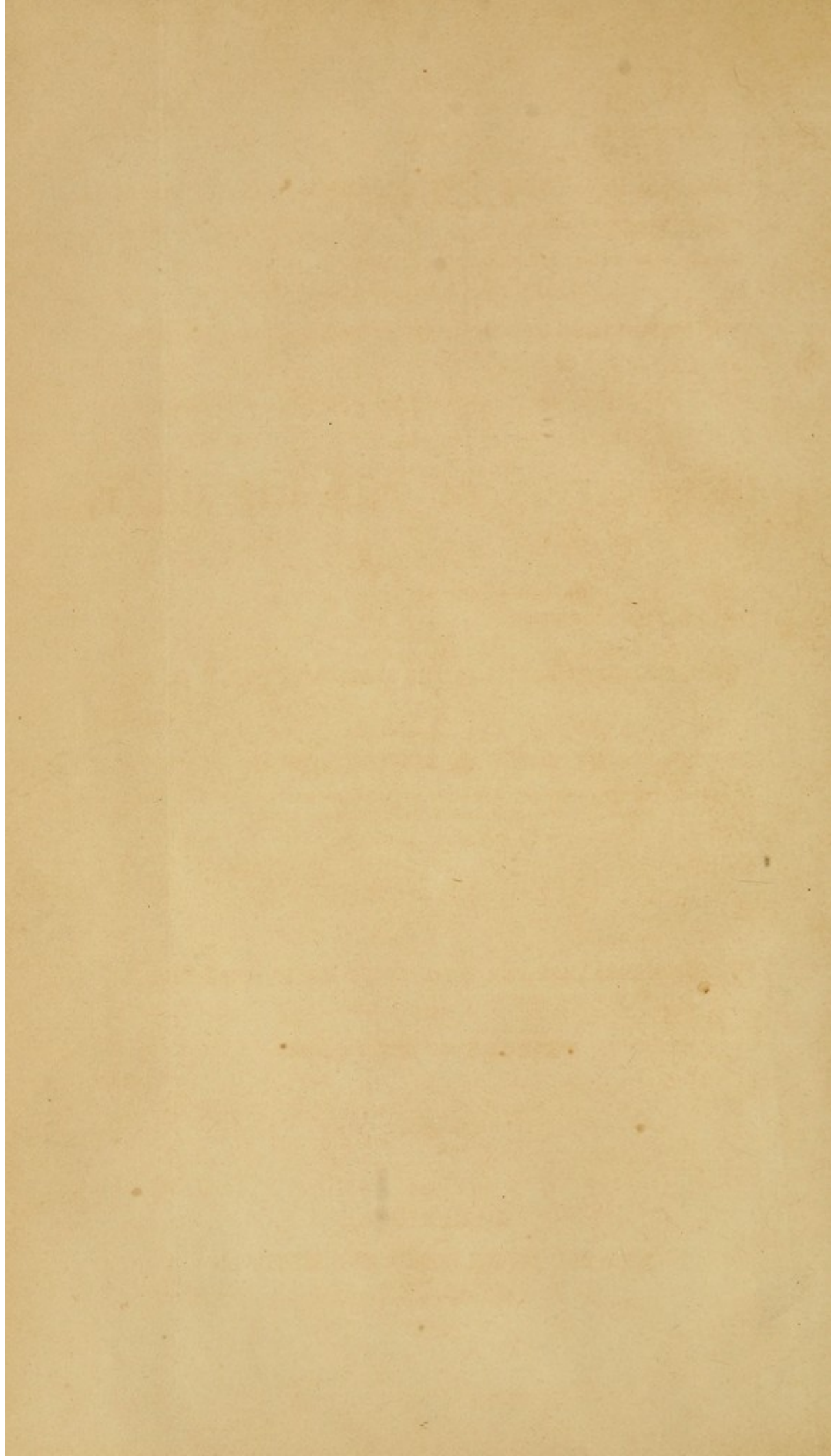








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A

LETTER

TO THE

HON. ISAAC PARKER,

CHIEF JUSTICE OF THE SUPREME COURT OF THE STATE OF
MASSACHUSETTS,

CONTAINING REMARKS

ON THE

DISLOCATION OF THE HIP JOINT,

OCCASIONED

BY THE PUBLICATION OF A TRIAL

WHICH

TOOK PLACE AT MACHIAS, IN THE STATE OF MAINE, JUNE, 1824.

BY JOHN C. WARREN, M. D.

PROFESSOR OF ANATOMY AND SURGERY IN HARVARD UNIVERSITY, AND ACTING
SURGEON IN THE MASSACHUSETTS GENERAL HOSPITAL.

WITH AN APPENDIX

OF

DOCUMENTS FROM THE TRIAL NECESSARY TO ILLUSTRATE

THE

HISTORY OF THE CASE.

CAMBRIDGE :

PRINTED BY HILLIARD AND METCALF.

1826.

REPORT

OF THE

HON. ISAAC PARRELL

CHIEF JUSTICE OF THE SUPREME COURT OF THE STATE OF MASSACHUSETTS

CONTAINING ERRATA

TO THE

RECORDATION OF THE THE COURT,

AND

IN THE PROCEEDINGS OF A TRIAL

WHICH

TOOK PLACE AT MAINE IN THE YEAR 1816

BY JOHN C. WARREN, ESQ.

ATTORNEY AT LAW IN THE ABOVE CASE, AND ALSO
CLERK OF THE SUPREME COURT OF THE STATE OF MASSACHUSETTS

WITH AN APPENDIX

OF

DOCUMENTS FROM THE TRIAL NECESSARY TO FORM A COMPLETE

VIEW

OF THE CASE.

CAMBRIDGE:

PRINTED BY HARRIS AND BENTON.

1816

TO THE
HONOURABLE CHIEF JUSTICE PARKER.

DEAR SIR,

IT may be thought strange, by some persons, that I should address to you a pamphlet on a subject appertaining to the medical profession. This liberty I have been led to take, partly from having intimated to you in conversation, that my opinion had been misrepresented in the publication which has drawn forth these sheets; and partly, from having considered this topic to be connected with jurisprudence, as well as medicine: but principally, that I might add respectability to these remarks by the sanction of a name, high in official station, and still higher in public confidence and respect.

The circumstances which involved me in this trial, and compelled me to make this publication, were briefly these. An individual, who had met with a grievous injury, applied to me for professional aid. This was administered to him to the utmost of my ability. He went away, and I considered my concern in the case to be closed. Much to my surprise, and I may say, dissatisfaction, after the lapse of a considerable time, I was summoned, in a legal way, to give a deposition to the facts of this case, within my cognizance. Being thus compelled, I gave

the deposition, to the best of my memory, and with the most impartial disposition as to the parties. At the distance of two or three years, more or less, for I do not remember exactly, it came to my knowledge, that this same deposition had been made use of in a court of justice; that having been thought to operate unfavourably on one of the parties, it was criticised by the attorney for that party, and a very great error discovered therein; and that the said attorney had commented on my opinion and practice in very severe and overpowering terms. My colleague physicians in the Massachusetts General Hospital, though less concerned in the business, were, I was told, also attacked, and made the objects of sharp remarks. Even public institutions, it was said, from the unfortunate circumstance of my connexion with them, had not altogether escaped the *tirade* of the said attorney. A great triumph, I learnt, had been thought to be obtained; and as the sphere of a court of justice was thought too limited for enjoying it, an account of the whole affair would soon be given in print, by the ingenious attorney, and would be distributed widely through the country, to the great confusion and serious detriment of my unfortunate, mistaken self and colleagues.

Not long after, I saw and read the publication. Though formidable at first view, a very little examination was sufficient to satisfy me, that it was one of those things, which might be safely trusted to the salutary reaction of public opinion; and that I had nothing to do, but to lay it aside and forget it, which I accordingly did.

At a subsequent period I was informed, that the confident tone of the adverse plea in this case had really imposed on many persons, not well acquainted with the subject; that my silence on an affair of so much eclat, had been construed into an admission of the charges against me; and that if I really had any thing to say in my own defence, it was proper to say it, for the sake at least of my colleagues, and that of public institutions, even if I was indifferent to my own reputation.

Such being the opinion of estimable persons, I determined to attend to the business, as soon as I could find a convenient opportunity; and if, on due investigation, it should appear that I could by any means poise the weighty arguments of the attorney, and muster facts able to stand up before those arrayed against me, to do it with the least possible delay. Since then, I have waited for the convenient time; but finding that unhappily it did not arrive, it became imperious on me to take the field, under all disadvantages, and to make the most of the resources ready at hand.

There are people, perhaps, who may think it hard, that the fact of my having been engaged in performing an official duty, should expose me to be the mark and butt of a witty attorney, first in a court of justice, and then in print. To this complaint it would no doubt be answered, that the cause of public justice required such an exhibition, and that a good citizen should submit to these sacrifices of feeling, without a murmur. Whether, if such answer were made, it would be thought a true and honest one, I submit to

the decision of the public ; and especially to that most able portion of it, the profession of the law. They can best tell, whether right and justice are helped by declamatory harangues respecting private character ; and whether, when these have been delivered to full effect, in the court of justice, it is necessary, judicious, and worthy to be a precedent, to put them in print, and distribute them through the country for general information. If such a course is considered justifiable, it surely becomes me to warn my own fraternity to be careful of giving depositions for legal purposes. For there is, perhaps, no one secure against the hazard of being made a subject of similar attack, and its necessary consequences, the loss of time and relinquishment of duties : and to whomever it may so happen, he must even be willing to think himself fortunate, if he should have the lot to fall into the hands of an equally ingenious, witty, and well-bred attorney, who, while he delicately cuts off part of his reputation, is willing to allow him the remainder.

The publication of this trial, however, may not be without its advantages ; for, as in the course of the discussion I have been compelled to state the principles on which dislocations are produced and cured, it may thence happen that some gentlemen, reading this as a controversial pamphlet, which perhaps they would have passed over, had it been a formal dissertation, may come to the opinion that dislocations are to be known and treated by fixed rules, formed on scientific bases, and not to be considered the subjects of a practice altogether empirical or inheritable by nature.

In settling the course best to be pursued, in an affair made difficult by the number and acuteness of my antagonists, the decision of one point has given me much concern. The opinions of medical practitioners, some of them very respectable, were brought forward in opposition to mine, long after mine had been known; a part of these, indeed, for the most manifest purpose of overturning the notions I had ventured to form. It was indispensable for me to meet these contradicting opinions, to examine their strength, and to show, if I could, their weakness. In doing this in print, I perceived there was danger of coming in contact with the feelings of the parties concerned, and throwing on them some degree of the inconveniences to which I had been exposed. This is what I seriously wished to avoid. I wish to wound no man, however culpable; and especially I desire not to couple the name of any one, in a permanent bond, with the imputation of error. This evil has, I trust, been avoided by the omission of all names, to which I was obliged to fix terms different from those of commendation. Offensive epithets, indeed, I have sought to avoid wholly; and if in any case I have failed, it will be a subject of greater regret to me, than to any other person.

The defects of style, the want of logical arrangement, and the interminable use of the first person singular, require, I am well satisfied, a great many excuses; and I am well aware, that none such are ever tolerated. For the last, perhaps, I ought to offer the necessity of the case; but as to the former, I can only plead, in abatement of censure, the very irregular, unsettled nature of the profession I have

the honour to cultivate; and the serious obstacles it presents to pursuing a continuous train of thought. All know that the high responsibilities of this profession demand a great quantity and a great variety of personal experience; a great knowledge of the opinions and experience in books, and a thoughtful application of the whole to the new cases of each day: but there are few people who know, or at least who realize, how little the medical practitioner of this country can command his time and thoughts, and how freely these are at the disposal of every body besides himself. Such considerations will, I am sensible, form an imperfect excuse for defects of style in this pamphlet; but happily, style, force of epithets, and even logical arrangement, are comparatively not important; my main business is with **FACTS.**

Boston, July 4, 1826.

LETTER.

SOME TIME in the month of December, 1821, I was called to visit a stranger at a public house in Boston. He informed me that he had received a severe injury in the hip, and had travelled a considerable distance for the purpose of obtaining surgical aid. His account of his misfortune was as follows : He was riding a spirited horse, when the animal, being restiff, suddenly reared, and fell backward on his rider. The weight of the horse was received on the inside of the left thigh, the patient having fallen on his back, a little inclined, as he said, to the left side. When he attempted to rise, he found himself crippled, and had continued so from that time.

I proceeded to examine the nature of this injury. For this purpose, the patient was stripped, and placed in different situations. First, I examined him in the upright posture,—afterwards sitting, and then lying on a bed. I made various movements of the disordered limb, and compared it with the sound one. Having continued this investigation as long as my time permitted, I told the patient, Mr. LOWELL, that his case appeared to be peculiar and difficult ; that I must examine him again, and in the meanwhile should consider the appearances. He readily assented, and it was agreed that I should see him the next day. As the case was uncommon, I felt myself bound to consult the best authority on the subject. For this purpose, I referred to the late work of Sir ASTLEY COOPER on dislocations, and with

the additional light thus obtained, proceeded the next day to another investigation of the case. The patient was again examined with care and attention. The result was a conviction that the limb was dislocated. The appearances were such as I thought could not be attributed to any other kind of derangement. The two most remarkable of these, omitting others at present, were, that the thigh was bent forward, so as to form a considerable angle with the body ; and, at the same time, the limb was longer than the other by about three inches ; that is, the knee of the injured side extended about this length, lower than the other. Such an appearance as the last named, it was clear, could only be caused by a displacement of the head of the thigh bone, or a very extensive fracture of the bones of the pelvis. As the other distinguishing symptoms of the latter accident did not exist, it followed, that the deformity must arise from the former. The determination of the direction taken by the head of the bone when it was thrown out, or the kind of dislocation was not so easily settled. As the limb was lengthened, it was clear that the present situation of the head of the bone could be neither above, nor on a level with, but below that of its natural socket ; or that the dislocation must be downwards. There being two courses which the head of the thigh bone could take in a downward direction, either forward or backward, I had next to consider with which of these two accidents the phenomena would best coincide. If the dislocation were forwards, I might expect to find the round head of the thigh bone in front of the socket, and near the upper part of the thigh ; the limb being at the same time much turned out ; on the other hand, if the dislocation were backwards, the head of the bone would be found behind and below the socket, and the knee of the patient, according to Sir ASTLEY COOPER, as I thought, and also according to some other authors, turned in towards the other. The existence of the former of these signs, of the dislocation backwards, and the most striking and characteristic one, I ascertained to

my satisfaction ; but the situation of the limb did not accord with the representation given of its necessary direction in such a case. What decision could I come to in this state of the contradictory phenomena ? On the one side, there appeared to be the opinion of a high authority ; on the other, that of my own senses. When I further considered the matter, it became obvious that the symptoms mentioned by Sir ASTLEY COOPER referred to a different accident ; to a lodgment of the head of the bone higher up ; and that if a lodgment of the bone should take place on the parts below the level of the socket, the movements of the limb would not be confined to the same degree, as in the other instance, nor would it have the same direction. Having duly considered this, and not being able to find the head of the bone in front of the articulating cavity ; but on the contrary, being satisfied of its existence behind it, I concluded that the dislocation was backwards, as well as downwards. The more full and continued display of the disordered part, and of its movements during the subsequent attempts to reduce the bone, by giving additional means of examination, confirmed me in this opinion. Such, or nearly such, was the course of my observations and reasonings, at the time when the injury was presented for my opinion.

Having formed a judgment of the nature of the derangement I told the patient, that I was sorry to be obliged to say, that he had a dislocation of the hip joint of the most difficult kind. This information did not seem, as I had expected it would, to surprise him ; for having heard my opinion, he proceeded to state, that he had in the beginning, supposed the limb to be put out ; that he had applied to surgical practitioners in his vicinity, and had been operated on for a dislocated hip ; that the bone was supposed to have been restored to its place ; and that he himself thought so, till he got up and began to try his limb, when he found it in a crippled state, and was after a time led to believe, that it had never been reduced to its proper situation. He did

not, as well as I can remember, name the practitioners to whom he had applied, nor did I hear their names till a long time after, nor know their situations till I saw the published trial.

A conversation then took place between Mr. LOWELL and myself, which was much as follows. "Since my limb, as you tell me, is out of place, what is to be done to restore it?" I answered, "Nothing." "Cannot you restore the use of my limb?" "No." "Are not limbs sometimes set after they have been out of joint as long as mine?" "Sometimes; instances of the shoulder being set, after having been dislocated a number of months, have occurred, but I never knew a thigh-bone restored, after it had been dislocated so long as yours." "Are you not willing to make an attempt to get the bone into its socket? Must I remain a cripple for life?" "Dislocations of the thigh bone are usually difficult to reduce, even when they are recent. Yours is the most difficult of four kinds of dislocation; considering this fact, and the time elapsed since its occurrence, there is no probability that your limb can be restored; notwithstanding, if you wish a trial to be made, and are prepared to submit to the suffering connected with it, I am ready to make it in the best manner I can for you." "Would it put my life in danger?" "I think not; I should not feel warranted in carrying any measures so far as to expose your life." "Well, I am willing to suffer any thing to get the use of my limb. I am young, and depend on my bodily exertions for my living. I am ready to run some risk of my life, for the chance of getting the use of my limbs again."

As we could not expect to find in a public coffee-house, the accommodations and apparatus necessary for our purpose, I advised Mr. LOWELL to go to the Massachusetts General Hospital, where every thing requisite would be amply supplied. In order that he and I might have the full advantage of the surgical skill of the place, I requested a meeting of the consulting physicians of the Hospital. Four, out of six, of these gentlemen at-

tended—Drs. TOWNSEND, MANN, WELSH, and SPOONER. To these gentlemen I stated in a very general manner, that the patient appeared to have a dislocation of the hip, which had existed some time ; that he was desirous to have an attempt made to reduce it, although I had discouraged it. I then proposed that they should examine it themselves, and give their opinion of the nature of the accident, and of the expedience of an attempt to restore the limb to its place. The patient was accordingly subjected to their examination. They conducted it in their own way, and continued it, I presume, till they were satisfied ; but what was their mode of examination, and what the time taken for making it, is wholly out of my recollection. This however is certain, that they came to a decided conclusion, that Mr. LOWELL's limb was displaced ; and as to its restoration, they were equally well satisfied that it was highly improbable, if not impossible. They thought, however, that if the patient well understood, that its reduction could not, upon any common and reasonable principle, be expected, and that he would experience much pain in the attempt, and that if, with this knowledge, he still continued to desire the operation, it would be expedient to perform it. The ground on which this conclusion was placed, was not the wish of the patient merely ; but it was founded on the conviction, that he must be maimed for life, if left in the state in which he then was ; on the consideration, that though the successful result of an attempt at reduction was highly improbable, it could not be considered as an absolute and physical impossibility ; and on the maxim, that a doubtful remedy in a desperate case is better than none. I desired the gentlemen to converse with the patient, to state to him their opinion, and hear what he had to say. This they did ; and, as I was absent during a great part of the time occupied by this conversation, I cannot say what passed ; but after I rejoined them, I heard them use language not calculated to induce him to submit to an operation ; and I heard him repeat to them, very much the same

words he had before used to me. Such being the result of this conversation, and such the resolution of the patient, I felt encouraged to employ my best exertions for his relief, from his present unfortunate condition.

Arrangements were therefore made, to prepare him for the operation, according to the practice founded on the doctrines of the great master of his art, the sagacious JOHN HUNTER; which have been so ably displayed by his pupils, especially the distinguished Sir ASTLEY COOPER.

“In attempting,” says Mr. HUNTER, “the reduction of a dislocated bone, the indications are,

“1. To make the naturally most immoveable part a fixed point.

“2. To overcome the action of the muscles, which draw up the dislocated bone, and resist its recovering its natural situation.

“3. Then by making lateral pressure, to force the head of the dislocated bone into its place.

“Here then a retrograde motion is to be observed, and the last action in the dislocation is the first to be overcome; the last action is that of the muscles drawing up the dislocated bone, and their force being overcome by distension in a proper direction, and by it, the head of the bone being brought to the edge of its receiving articular surface, is then by lateral pressure to be forced into its place.

“If a dislocated bone remain in its unnatural state a considerable time, and in contact with a bony surface, by degrees it forms a new socket for itself; the bone against which it presses undergoes absorption, and the adhesive inflammation arising in the parts around, a new joint is formed. These may be called necessitous joints.

“This happens commonly in irreducible dislocations of the thigh bone.”

The principles roughly sketched by JOHN HUNTER, have been more distinctly displayed by Sir ASTLEY COOPER. While Mr. HUNTER taught that the principal

resistance to reduction was caused by muscular action, Sir ASTLEY COOPER has told us how to overcome this resistance. Instead of attacking the resisting powers by mere mechanical force, he goes at once to the source of these powers, and cuts it off. The means he suggests for effecting this object, are all those agents known to weaken the muscles. Of which, bleeding, the warm bath, and nauseating medicines are among the most efficient.

Guided principally by such authorities, I proceeded to make the arrangements for the proposed trial. The patient was about 30 years of age, I presume, and rather muscular; but having been recently confined by his accident, the muscles were not rigid. In the morning, he was subjected to the action of a powerful purgative. The warm bath being afterwards prepared, he was immersed therein, at as high a temperature as he could bear, and retained there for an hour. Small doses of tartar-emetic were given, in the way suggested by Sir ASTLEY COOPER, so as to produce that deadly sickness, which relaxes the whole muscular system: finally, at the moment the apparatus was to be applied, a vein was opened in the arm, and blood drawn as rapidly, and in as large quantities, as the faintness of the patient permitted.

The apparatus having been previously prepared, he was placed on a table covered with blankets, on his right side, and carefully fixed to the table by bands passed round the pelvis. Other bands were passed between the thighs, and secured to the wall of the apartment. Thus the pelvis, being immoveable in the transverse and in the longitudinal directions, was made the "fixed point," on which to operate. The powers designed to extend the limb were then applied in the two directions opposite to those of the forces meant to keep the body steady. Soft substances were placed around the middle of the thigh, and about them a strong band, to which were attached the dislocation pullies, in such a manner as to draw at right angles to the body; while other cords were fixed above the knee, to draw

the limb downwards, in a direction opposed to the cords passed between the thighs. These last were of course so situated, the patient being on his side, that the extension downwards might be forwards or backwards, and were entrusted to the hands of as many individuals as were required.* The necessary articles being arranged, the longitudinal force was put in operation, by the hands of the assistants, and the lateral force by the pulleys, both of them in the most gradual manner, so as not to excite the muscles to contract by sudden jerks ; but by a steady, long continued force, gradually to exhaust their energy, and overcome their resistance to reduction. While this was doing, I occasionally examined the situation of the head of the thigh bone, placed my hand thereon, and felt its movements, produced by the extending forces. I also requested some one or more of the consulting physicians to feel the head of the bone, with the intention of ascertaining whether its motions were such as to encourage us with the hope of its being approximated to its socket ; and they did one or more thus examine and recognise the movement of this part, with an expression of their opinion that the change of position was not considerable, nor sufficient to lead us to believe that the bone would be reduced. When the extension had been made for some time, I seized the extremity of the limb, and operating with it as a lever, while the lateral force was still acting, made strong movements of the limb, with the intention of breaking it from its situation, by destroying its newly formed adhesions of cellular membrane. Aware that dislocations had been often re-

* At first view it might be thought unnecessary to extend, or lengthen, a limb already too long ; but, as we shall again state hereafter, when a bone is thrown out of its socket, some of the muscles are over-strained, and draw the limb towards them, until it hitches or is engaged somewhere ; and these muscles confine it in its new situation, till their contraction is overpowered. The object of the application of force in a longitudinal direction, in such cases, is not to make the limb permanently longer, but to disengage it, so that it may afterwards be drawn or pushed into its natural place ; a change, that would be produced in this case, by the resisting muscles themselves, provided the bone were previously disengaged.

duced in a manner, the most opposed to that expected, even after judicious and scientific means had been tried in vain, I was studious that no practicable mode of operating should be omitted. The direction given to the limb was therefore varied in every possible manner; and this practice I adopted with more decision, from reflecting that if the limb were not restored to its place, yet the contraction of the muscles would be partially overcome by this process, the motions of the limb subsequently increased, and the condition of the patient improved. Such was the course adopted during this operation. I often questioned the patient as to the degree of suffering, and, on his declining any complaint, increased the application of force. After this had been continued an hour or more, with such changes as circumstances suggested, the patient appeared to be satisfied that the reduction was impracticable, and agreed to a discontinuance of the operation. The consulting physicians, being also of opinion that every warrantable effort had been made, advised to forbear any further attempt. At the time the force was about to be removed, I put in practice a recommendation, made, I think, by Sir ASTLEY COOPER, for a dislocation backwards, and which I had employed in a successful manner in a former case, of iliac dislocation; namely, to pass a round towel, called by us a roller, between the thighs of the patient, to throw it over my shoulders, and then make an effort to raise the upper part of the bone, while the foot was carried inwards to the other. This affords a mode of operating in a very powerful manner. I found it not more successful than the other means employed, and therefore desisted from further trials. Thus terminated the operation, in the manner I had expected and represented.

Although the means necessarily employed to give the patient a full experiment appeared to me severe, he submitted to them most courageously, and never uttered a complaint, that I know of, at that time or since. In a day or two he was well enough to leave the hospital.

From a publication made by him, after the last trial of his cause, I learn that he was so little appalled by the severity of the operation, and had suffered so little injury from it, that after an interval of a single week, he was able and willing to apply to another practitioner of surgery, of much experience and skill, and to submit to another effort at reduction. This second trial having terminated like the first, he was induced, after the interval of a fortnight, to apply to a third operator, a person of reputation for his success in reducing dislocations : and he even a third time underwent the process of extension. The result of this attempt was the same as that of the first and second. The efforts made in the two last attempts were, it is said, at least as forcible as those in either of the preceding.

By one acquainted with these facts, it would scarcely be credited, that the operation at the hospital was represented by the attorney for the defendant in language calculated to excite the indignation of a jury, and to give them a strong prejudice against those who could advise and practise such cruel proceedings.*

Some time after these occurrences, I met the patient, Mr. LOWELL, in the street, and was accosted by him. He informed me that he was about to return home ; that he had thoughts of instituting a suit against the physician and surgeon, who were first called to him, and that he should be glad to have from me a statement of his case. On hearing of this intention, I immediately remonstrated with Mr. LOWELL. I told him that he ought not to blame his medical attendants, for his case was one of difficulty ; that they had done the best they could for him ; and that if he trusted any medical man, the responsibility must rest with himself, for, if he had not confidence, he should not have employed the individual. To this he replied, that he would not desire to bring an action against the surgeon, had he done the best he could ; but that he thought himself grossly neglected ; that when

* Vide Appendix, No. III.

he first suspected his limb had not been reduced, as it was thought to be, he sent for the surgeon, and was not able to obtain his attendance till a number of days afterwards; that, when he did come, he acknowledged things were not right, but left him without making any attempt to rectify the difficulty; and that he was, in consequence, a cripple for life. He thought he was entitled to compensation for the injury he had suffered in being thus neglected. My answer was, that there were probably circumstances connected with this apparent neglect, not fully understood, and which would give a different aspect to the case; that certainly I was of opinion he could not expect to recover damages in such a case, and therefore strongly advised and hoped he would lay aside all thoughts of a lawsuit, and must excuse myself from giving a statement, or in any manner interfering further in the affair. With this we parted, and I believed that what I had said to him, would influence him to abandon the project of a prosecution.*

* This conversation, apparently trivial, I have stated as minutely as I can remember it, because a story has been industriously propagated in Maine and in Boston, that, not only was the lawsuit, instituted in this case, founded on the opinion I gave of the injury, but moreover, that I encouraged and stimulated the patient to seek reparation for his misfortune in this way.—Nothing can be more untrue. What possible motive could I have, for harassing an unfortunate practitioner with a lawsuit? It is insinuated that I wished to gain some little eclat by contrasting my discernment with the ignorance of a remote practitioner, and that I expected to bring into notice the Massachusetts General Hospital, by the display of an attempt to reduce an irreducible dislocation. As to the latter insinuation, it requires no answer; and for the former I must, though with diffidence, assert, that I have always been desirous of supporting and aiding individuals, and contributing my humble aid to improve the medical profession. Let it not be forgotten, however, that our first duties are to the public. It is for them we exist, and to them we are answerable. No one should be deterred, by the apprehension of giving offence, from a conscientious expression of his opinion, when it is really required. Dr. HOSACK, in an inaugural address, has very justly remarked, that “Coalitions, except when they are directed to mutual improvement, or the benefit of the community at large, are inconsistent with, and a violation of, the solemn obligations which the physician enters into, when he receives the Doctorate of Medicine.”

Some months after the conversation with Mr. LOWELL, I received a letter from the practitioner chiefly concerned in this case, couched in terms apparently friendly, containing a request that I would give my opinion of the nature of this accident, and of the treatment he had adopted. The writer was till this time unknown to me, even by name. Not being aware of the object of this application, and believing that he wished to clear himself from the effect of reports which might have been circulated in regard to the affair, I wrote a hasty and brief answer, and without changing the expression of the opinions I had already given, I said what I conscientiously could to relieve his mind, and to give him some means of showing to others, that I was not disposed, by my view of the case, to promulgate opinions, more unfavourable to his practice than I was compelled to do by a regard to truth.* This letter, written hastily, as a private communication, without any suspicion on my part of the existence of a legal process, was subsequently annexed to a deposition, which I was called on to give, and produced in court, and though it was objected to by the court, as not admissible, yet the attorney for the defendant has thought proper to print it in connexion with the trial.

Perhaps the terms in which I endeavoured to frame

There are instances when the declaration of a mistake on the part of a medical practitioner could be productive of no possible benefit to the patient, and might do harm to the physician. Under such circumstances, silence would not only be proper, but necessary. It must be a miserable mind that would devote to ruin the reputation and happiness of another, merely for the gratification of his own pride. Such individuals are sometimes seen; but happily they are few, and reap their reward in the frowns and aversion of all good and high-minded men.

Although I have been led by these reports to advert to the topic, yet it is not, in fact, important to the subject of these remarks. The opinion I gave on this injury, was not meant to correct the error of another person. As I have already said, I had not a suspicion, when I formed it, that any physician or surgeon had been consulted in the case. My attention was fixed on the character of the injury, and the possibility of finding a remedy. Knowing no reason for concealment, I told the patient my opinion frankly and fully.

* See Appendix, No. V.

an excuse for the practitioner, may be thought too little qualified ; my apology must be found in a sincere desire to prevent his suffering evil consequences, from what I then considered his misfortune, rather than his fault.

So long a time elapsed after the letter, before I heard of this affair, that I did not expect to be troubled on the subject again. This ignorance on my part arose, as it appeared afterwards, from the distance by which the parties and myself were separated from each other, a space of three hundred miles. At the expiration of about a year, more or less, from the occurrence of the accident, I received a letter from the patient, Mr. LOWELL, in which he informed me that he had recently been examined by a practitioner of surgery, of much experience and ability, who had declared in the most unequivocal language, that his hip was *not out of joint, nor ever had been so*. Mr. LOWELL appeared to consider this opinion lightly. To me it appeared so extraordinary, that a practitioner, coming many months after others, who had examined the accident in the fullest manner, and with the most impartial intentions, should form an opinion directly opposite to the former, that I was incredulous on the subject. That another surgeon should differ from me concerning the kind of dislocation, considering the infrequency of the species, would have excited no surprise ; but the general symptoms of displacement had appeared to me as strongly characterized as those of any dislocation, of any joint, which had ever presented itself for my examination ; other persons had been equally well satisfied, and this at an early period of the derangement ; so that it may well be thought I was a little surprised at so unexpected a declaration.

A suit, it appears, was instituted about this time, by the patient, against the surgeon and physician first called to administer to him. The nature and grounds of the charge made against these gentlemen, may be gathered from the testimony in the Appendix.* It seems that

* Vide Appendix, No. I.

the medical practitioner first called, examined the injury, pronounced it to be a dislocation of the hip joint, made attempts to reduce it, and did, as he thought, succeed; but the friends of the patient not being satisfied, another, more in the habit of surgical practice, was called from a neighbouring town, and took the management of the case. He examined the disordered limb, declared it not to be reduced, and proceeded to take measures for effecting its reduction. After a short time, he considered his efforts to have succeeded, and the limb to have been reduced. The patient was put into bed, with his knees tied together, and left in the care of the physician first called, who visited him daily; while the surgeon, living at a distance, and on the other side of the water, saw him occasionally. After some time, the patient, finding his limb lengthened, and without its natural power of motion, became uneasy, and desired the attendance and examination of the surgeon. The latter, on his visit, seems to have declared himself not well satisfied with the appearance of the limb, but did not then, or at any subsequent time, propose any important measures for reducing or improving it.

On the first trial of this action, the jury gave a verdict for the plaintiff, and awarded \$1900 damages. On a second trial, the verdict was again for the plaintiff, damages \$100. On a third, of which a report has been printed, the jury were not able to agree, except in acquitting the physician first called; and one of the jurors, being unable to attend longer, on account of ill health, the parties agreed to withdraw, without costs on either side. The result of this last trial was, therefore, in fact, favourable to the defendant.

It would have been better, perhaps, if the affair had thus terminated. Unluckily, the attorney for the defendant, probably with his sanction, or at his request, thought fit to prepare and publish a report of this trial, with his argument at full length, containing statements and representations calculated to produce unfavourable

and erroneous impressions in regard to the professional conduct of my colleagues and myself, and to bring ridicule on the institutions, with which we are connected. In the investigation of a case of local injury like this, it would seem quite a flight of imagination to reach even the character of a hospital; but the writer has brought within his compass the medical school, and University of this vicinity. Productions like this, involving the reputation of individuals, whether professional, or moral, are among those most eagerly read; hence this "Report" has, with the aid of a little industry, been widely circulated. Its representations have had some influence on the public mind, and given some uneasiness to those concerned in the welfare of these institutions.*

* The ingenuity displayed by the attorney for the defendant in this trial, was certainly very meritorious; but it does not appear to have been necessary to blazon it by a publication of this description. Especially, when the display was to be made at the expense of professional men, against whom there could be no crime charged,—unless it were one to perform a charitable act, in the course of their official duty, and afterwards to state their knowledge of the fact, in obedience to the call of public justice. The attorney for the defendant has in his advertisement said, "There can be no doubt of the respect entertained for the eminent talents and virtues of those distinguished individuals, whose opinions are commented on, or controverted." If this general remark were sincere, why did he think it necessary to put the names of these individuals in print, in connexion with terms of ridicule; and to send them thus throughout the nation, and, as far as he is able, to posterity. A person of discernment could not but be aware of the probable operation of such a pamphlet, in the possession of the evil spirits of society. The writer has indeed assigned, as a justification of the proceeding, that a partial account of this case had been recently published by the plaintiff, and that it was consequently necessary to prepare one more complete and just. The account published by the plaintiff was in truth little more than an expression of his feelings, under the influence of recent disappointment. Having in himself the full conviction of the reality of an injury, of which the existence had been ridiculed in a court of justice, he printed a pamphlet in the form of an "Appeal" to the public, in order to convince them of his true condition, and to relieve himself from that state of excitement, produced by the final, and irremediable failure of hopes which he had long been accustomed to cherish. The publication on the other side, is of a very different character. It is not the work of one of the parties concerned, but that of the attorney,

Previously to the occurrence of this third trial, I was visited by the plaintiff, for the purpose of obtaining my deposition to the facts which had come within my knowledge. On learning the object of this visit, I declined any agency in his case. I stated to him, that all the service in my power had been rendered, and that I thought myself fairly entitled to be excused from further trouble, especially as I had discouraged the suit, and did not feel justified in taking any measures, likely to operate against the defendant; he being of the same profession with myself, and therefore entitled to a reasonable degree of fellow feeling. He replied, that he was an injured man, and must have justice, and that for this purpose, my deposition was essential.

He left me without obtaining my consent to give the deposition, and soon after, a notification was received from Lemuel Shaw Esq. to appear at his office, and answer to certain questions proposed by the parties on either side. I did not appear on this notice, but applied to Mr. Shaw, on whose science and integrity I could repose the most perfect confidence, with a view to ascertain whether I could be compelled to answer in such case. This gentleman informed me that I must either appear to give testimony, or be responsible to the party aggrieved by my non-attendance, to the amount of damages by him sustained. A summons was afterwards issued, and money tendered

who had already obtained all he had a right to ask for. It is a publication of some study and ability. Impartial men must undertake to judge whether a sudden display of feeling on the part of the plaintiff afforded a sufficient ground to justify the publication by the attorney for the defendant of a report, containing imputations, not only on the defeated and unfortunate plaintiff, but also on various professional persons, to whom he happened to apply for assistance. It would have been perhaps more judicious in this ingenious gentleman and his client to have been satisfied with success, and not have looked for revenge. They would then have spared me this disagreeable task, which nothing but the necessity of self defence would have compelled me to undertake. The statements made on the trial, which I have now been obliged to combat, might have stood well with the world always, for aught I should have done, had the defendant and his friends abstained from this and their other publications.

in legal form, as is usual in cases where the attendance of a witness is to be compelled.

Accordingly I appeared, and submitted to a series of interrogatories and cross interrogatories, which occupied about three hours. My answers were made according to the best of my knowledge, and recollection at the time; and comprehended an account of the facts of the case, already stated, with some others. The substance of these answers was nearly this: That I did at a certain time attempt to reduce the dislocated limb of the plaintiff, in conjunction with other physicians and surgeons named;—that the reasons for believing the existence of a dislocation in this case, were, the unnatural position of the limb; its elongation; the accompanying contraction of the thigh and leg; the displacement of the trochanter; the displacement of the head of the thigh bone, and its appearance in an unnatural situation, in or near the ischiatic notch; the inability to use the limb in the ordinary manner, and the consequent necessity of extraordinary and constrained movements;—that manual force might succeed sometimes, in reducing dislocations of the hip joint, and that when this failed, mechanical means must be employed;—that the elongation of a disordered limb might be produced, to some extent, by simple relaxation of muscles, or by relaxation of muscles accompanied with fracture of the bone;—further, that the thigh bone, after being reduced, might be thrown out again, by the application of considerable force, or by movements of considerable extent, but not otherwise;—that a surgeon who employs the best means in his power, ought not to be responsible in damages;—that a surgeon who has opportunity to examine a case of dislocation, immediately after the injury, other circumstances being equal, has better means of judging of the nature of the case, than one who examines several months after;—that the case in question, though not without its difficulties, appeared to me to be one, in regard to which, men of high standing in the profession would not differ. The manner in which the

reduction was attempted, was also described, though with less minuteness than as I have now described it.

The questions proposed to me were also proposed to three of the consulting physicians, who had examined the case with me. The coincidence of their opinions with mine, at the distance of more than two years from the occurrence described, affords a strong proof of the authenticity of the evidence, and the distinctness of the most important impressions made by this case on each of the individuals questioned.*

In the representation I gave of this affair, it is obvious that there was no disposition shown to bear more severely on the defendant than regard to truth demanded; that on the contrary, I was disposed to admit whatever might tend to afford him the fullest opportunity for self-defence. This course would, to many persons, seem to call for a corresponding demeanour on the part of those employed to defend the accused; but so far from this, the attorney for the defendant, not contented with the performance of his professional duty, that of exerting every effort to prove our conclusions to be groundless, has treated us in the manner considered allowable in courts of law, in the case of witnesses guilty of prevarication, malicious design, or gross falsehood. This course must

* The attorney for the defendant has not neglected the opportunity of insinuating that there is something suspicious in this concurrence of testimony. "This circumstance is barely noted," he says, "at this moment, in conjunction with the *memorable coincidence* of opinion expressed by the learned faculty at Boston. In this view however, it becomes quite edifying to observe the *exquisite harmony* prevailing in the sentiments of the other parts of the *choir*, swelling altogether beyond the *gentle cadence* of their *candid precentor*, that a dislocation of this nature was not altogether without its difficulty."

For this insinuation of a collusion between the other gentlemen and myself, there is as little ground as for other imputations thrown out in the course of the remarks of the attorney. The truth is, that I never saw the depositions of either of these gentlemen, and two of them certainly could not have seen mine; for their depositions appear to have been taken previously to it; nor has any other communication on the subject existed between us, from the day of the consultation in the Massachusetts General Hospital, in the month of December 1821, to the moment when I am writing.

be considered very objectionable, for the whole medical profession are liable to be called on for opinions, which would equally expose them to such treatment, if they happened to fall into the hands of persons inclined to practise it.

The attorney does not seem to be justified in his proceeding by an appearance of excessive confidence in the opinion I had occasion to express ; although he has freely imputed such confidence. I stated, that "this dislocation was one difficult to discover, but one in regard to which *I thought* men of high standing in the profession could not differ." Could I have spoken less confidently in regard to any case, in which I had made up an opinion at all, especially after two several private examinations, confirmed by a third in public ?

A specimen of the kind of language, to which I allude, is contained in the following extract from the argument of the attorney for the defendant. In this part of his address, there are not indeed any personal allusions of an extra-professional kind, but the quotation will exhibit the manner of the orator, and show whether he is authorized to charge others with too much confidence.

"Taking the account given by Dr. Warren of their reasons as the text—and reading their result by its own light, there needs no more satisfactory test for trying its own truth. Its condemnation shall come out of its own mouth ; and on a critical examination it will not only prove to be a *perfect fallacy*—and shown to be a most *egregious error*, but demonstrated to be one of the most *absurd, unaccountable, and incredible* description. Its refutation can be established upon the most obvious *principles of anatomy*, which it will appear, have not only been disregarded by these *learned doctors*, but that their conclusion has been adopted in *absolute defiance* of them—a *hallucination* of the most extraordinary character itself—such as could hardly have been expected of a *surgeon of three months* standing."

To this language I shall reply by an investigation of facts.

In order to show what opinions the orator intended to convict of such perfect absurdity, it would be desirable to give his allegations and arguments in his own language ; but, such is the character of his harangue, as to

render this impracticable. It may be gathered from it, that his object is to prove two allegations :

1st. That no dislocation existed in the case of Mr. **LOWELL**.

2d. That such a dislocation as I supposed to exist in this case, is, according to the authority of Sir **ASTLEY COOPER**, impossible.

By the aid of a deposition from a gentleman of high standing in the profession, showing that, in his opinion, no dislocation existed, and by presenting the authority of Sir **ASTLEY COOPER** in a light favourable to his object, the attorney prevailed so far as to obtain a disagreement of the jury. Any jury must indeed have been greatly influenced by the consideration, that one surgeon of eminence doubted the existence of a dislocation ; for a doubt from such a quarter would alone seem sufficient to exonerate the defendant from the charge of ignorance, or at least partially so.

The charge of negligence, the **ONLY GROUND**, as it seems to me, of accusation, that ought to be maintained in such a case, does not appear to have been much insisted on, by the attorney for the plaintiff, at least if we are to judge by this " Report."

My design, it will be perceived, is not to prove the criminality, or inability, of the defendant. With his practice I wish to have nothing to do. The object I have in view is to defend myself against the allegations mentioned above, and against the means employed to support them. I shall, therefore, proceed to examine them successively : and,

First, whether a dislocation did actually exist in the present case.

The appearances which led me to believe, that there was such a dislocation, I have already stated. It is therefore proper to inquire, what are the grounds on which the opinion, thus given, has been proved or supposed to be erroneous ; and they appear to be constituted by the depositions of four medical men.

It seems that about six months after I had seen this

case, and nine months from the occurrence of the accident, the plaintiff was examined by a surgical practitioner of much reputation and experience, who pronounced that no dislocation did then exist, and he moreover intimated that none ever had existed.* Another practitioner was present at the examination, who agreed to this opinion. After a period of two years or more, when the cause was for the third time on trial, two other gentlemen appeared in court, neither of whom, so far as we learn, had examined the patient, yet both of them made oath, that the accident was not a dislocation, but a fracture, or *some other* injury of the joint.

The deposition first alluded to, which will be designated as deposition A., being first in point of time, comes first to be considered. In commenting on this deposition, proceeding as it does from a gentleman of high standing in the surgical art, I feel some degree of embarrassment and reluctance; yet, whoever considers the matter a little, will, I presume, see that I have been compelled to it by the publication of this trial, and the gross insinuations it contains. The gentleman in question examined the case six months after my colleagues and myself, gave an opinion wholly opposite to ours, and one tending to show we were in the wrong in every point. I do not say that he did so with this intention, but his opinion had this effect, and influenced others to take the same ground; it was brought into court, served as an important instrument in the hands of the attorney, and finally was employed to assist in making a book, of which the obvious tendency is to injure our professional character. I hope therefore to escape the charge of a want of due respect, to a gentleman in advance of me in age and experience, if I examine the ground taken against me very fully, so long as the examination is conducted in a decorous and honourable manner; and I trust that in doing this, I shall make use of no expression, which is not called for by the defensive nature of my position.

* See the deposition marked A. in the Appendix.

It is to be considered, that the circumstances attending the accident of the plaintiff, were such as were likely to produce an injury of an important character, such as fracture of the bones of the thigh, or pelvis, dislocation of the former, &c. Several kinds of injury were *primâ facie* to be regarded as probable consequences of the fall. The subsequent phenomena showed that one or more of these actually existed, and every medical man, of many who examined the patient within a period of nine months from the date of the accident, had decided that the actual result was a dislocation of the thigh bone. The defendant indeed supposed this to be complicated with fracture of the socket, but all agreed in asserting its existence. The deponent A., however, was induced, by the result of an examination, made at the end of the above mentioned period, to conclude that all his predecessors had been mistaken, and that the injury was of a different kind. In order to have an adequate sense of the importance of this deposition, it is further to be considered, that the question had become unusually important, and that the decision of the court concerning it was a matter of extensive interest, and likely to affect in various ways the property and character of many individuals. In the testimony of a distinguished person, given under such circumstances, we should expect a clear statement of the phenomena, which he considered inconsistent with the existence of dislocation, and of those, which in his opinion tended to prove that of some other possible derangement. We shall be able to estimate the force of the reasoning on these points better by reducing the substance of the testimony to distinct propositions. These are,

1st. That the manner in which the accident happened, was such as to render it scarcely possible that the hip should be dislocated.

2d. That some of the phenomena, as the lengthening of the limb, distortion, &c. which had been attributed in this case to dislocation, did in other instances, and might in this, arise from other causes.

3d. That the symptoms exhibited in LOWELL's case differ in some essential circumstances, from those, which are exhibited by any one of three different species of hip dislocation.

Which of these propositions points out any circumstance of the plaintiff's accident, that in the opinion of the deponent is incompatible with the notion of a dislocation of the hip bone? The first alone. The argument is, that, since Mr. LOWELL fell on his hip, the fall could not dislocate it. But Mr. LOWELL informed me and others, that he fell on his back, and REYNOLDS, the only witness of the circumstances of the fall, swears positively to the same effect.* The deponent therefore, being misinformed in regard to a fact, his opinion, so far as it rests solely on this fact, is without weight.

The second proposition points out nothing inconsistent with dislocation. The phenomena detailed belong to dislocation. They belong also, according to the deponent, to other derangements. I shall hereafter endeavour to make it appear, that, in the manner and degree in which they existed in LOWELL's case, they could not be accounted for, on the supposition of any other cause than dislocation. I might safely admit, however, for the present, that they could, for this would prove only that LOWELL's injury *might be* fracture, hip disease, or something else, not that it *was not* dislocation.

The remaining proposition goes to prove merely, that the bone in this case could not have been dislocated in any one of three different directions mentioned by the deponent. It will hereafter be seen that I agree with him in this opinion. Still there is nothing decisive against the existence of dislocation, unless it be asserted, that it is possible in no other direction, which the deponent nowhere says.

The whole of this part of the evidence of the deponent is evidently connected with the first proposition. Conceiving it impossible that a dislocation should result

* See the deposition of Reynolds. Appendix, No. II.

from a fall on the hip, he was naturally led to seek for some other probable explanation of the phenomena. This singular difference of opinion is therefore to be traced to incorrect information.

This is equally obvious when we consider the evidence, contained in the deposition, in another point of view, that is, as it sets forth the circumstances, which, in the opinion of the deponent, are decisive of the existence of a particular species of injury. The only one offered is a sort of corollary from the first of the above propositions. "A fall on the hip," &c. says the deposition, "might drive the head of the bone through the socket," &c. and "in my opinion, if there is any derangement of the bones, it is a fracture." The "fall on the hip," again, is the only decisive circumstance in favour of fracture.

It is not necessary for me to point out the incorrectness of the deponent's inference from the supposed fact. It is not expected of any one to draw correct conclusions from false premises, and it must be obvious to every reader, that the deponent was under the necessity of coming to an erroneous conclusion.

My situation as defendant in this affair, obliges me further to remark upon two other opinions which appear in this deposition. They have not indeed a direct bearing upon the present question of the existence of *any* dislocation. But they are likely to have an influence upon the judgment of the public in regard to it, since, if correct, they prove that the opposite opinions, previously expressed by me, are unfounded, and thereby go directly to diminish the confidence in my testimony. I refer to the deponent's opinion concerning the length of time after the accident, which may render it difficult or impossible to restore a dislocated limb, and to the opinion concerning the use of pullies :

"I should not think," says the deponent, "that a hip joint having been out of place *six* or even *eight* weeks, would render it impossible to reduce it. It might even be *a more favourable time* for the operation, than immediate-

ly after the accident, especially if the soft parts were much bruised and swollen." This doctrine appears new to me, I must confess, and will probably be so to most surgeons. It has been generally thought to be of primary consequence to effect the reduction of a dislocated bone with the least possible delay; because, independently of all reasoning, *experience has taught*, that the difficulty is less during the first hour, than during the second, and so on; and that a dislocation which might be reduced with ease the first day, would present a great resistance the next. No practical axiom has been more generally adopted, therefore, and none more firmly established, than that which teaches the necessity of immediate surgical aid in such injuries; and what was before established by experience, has been confirmed by the discovery of the principles which operate in producing dislocations, and which ought to govern the attempts to remedy them. To the school of HUNTER we are indebted, I believe, for the more distinct knowledge of the fact, that the great obstacle to the restoration of a dislocated bone is to be found in the resistance of the muscles. In the passage already quoted, Mr. HUNTER lays down as a principal indication in the reduction of dislocations, that we are "to overcome the muscles, which draw up the dislocated bone, and resist its recovering its natural situation."

The old opinion that ligaments only prevented the bone from returning into its socket, is generally abandoned, as it has been well ascertained, that there are but a few instances where they prevent a bone from obeying any external impulse after these accidents. In a complete dislocation of a capsular joint, such as the shoulder or hip, the ligament is in most cases extensively torn; a part of it usually remains connected with the bones, and this part helps to retain the bone in its new situation, though not sufficient to do it of itself. In joints, confined only by lateral ligaments, as the fingers, a dislocation may take place without a rupture of the ligaments, and, when this happens, the resistance will be made by these, and not by muscles; whence it has

been proposed to divide one of these ligaments, in the case of an irreducible dislocation.

Having made these remarks to explain how far the action of the ligaments appears to be admitted as a cause of resistance, it may be repeated, that the doctrine generally received at the present day is, that the muscles are the principal agents in producing and maintaining dislocations. In causing dislocations, by a well intended effort of nature, they act in a violent and unexpected manner ; using the bone as a lever, and an exterior body as a fulcrum, so that the bone is displaced more by their action, than by the external violence. In retaining the bone in its new place, they are governed by the disposition, common to every healthy muscle, to shorten itself as much as possible.* Whenever a bone is thrown from its socket, the situation of most of the muscles about it is altered ; some of them are lengthened and others shortened. The latter immediately begin to contract, in order to accommodate themselves to their new situation ; and as soon as they have attained the degree of contraction their state permits, their relations to the joint are changed, they are no longer in a condition accommodated to its ordinary structure, and oppose a return of the bone to its place. The muscles, on the contrary, whose two points of attachment are removed further from each other, are elongated and overstrained to such a degree, that they would immediately draw the bone back to its proper place, were it not hitched on some bone or muscle, but this being the case, their contraction, instead of restoring the bone, does indeed confine it in its unnatural situation, and tends to prevent its being disengaged. In the dislocation of the

* When the knee pan is broken, the muscles connected with the upper fragment of the broken bone, draw it upwards several inches ; their action in this, is analogous to that of a spiral spring, drawn out and then abandoned to its elastic power. The same occurs in the rupture of the *Tendo achillis* near the heel ; the upper fragment of muscle contracts, and leaves an interstice between the divided parts. The laws governing the muscles in such instances, exert their influence in dislocations.

thigh bone downwards, the Psoas magnus, Iliacus internus, and part of the Gluteus medius are put on the strain. It appears that on the occurrence of a dislocation, the bone is confined at first by the *overstrained* muscles only, as, in the instance named, by the Psoas, Iliacus, and Gluteus; but after the other muscles have had time to contract, these also add their powers to that of the first, and incalculably increase the resistance. There is another way in which muscular action may be concerned. It is when the bone, in its passage from the socket, perforates a muscle, or forces its way between two muscles, and the muscular fibres contract about and embrace it. This is probably the case in many of those instances, in which, after the unsuccessful exertion of a powerful force upon a displaced bone for a considerable time, a slight movement effects its sudden restoration, by accidentally bringing the head of the bone to the rent in the muscles. Sudden reductions, I imagine, often happen in this manner; though they may arise from simply disengaging one bone from another, and sometimes, but more rarely, from the bone having been confined by its ligament.

A knowledge of the principles alluded to, will show the vast importance of an immediate reduction in most cases of displaced bones. The practice ought not to be lightly abandoned, because the soft parts are swelled. The swelling of the soft parts at first, exists principally in the cellular substance, which can oppose no considerable obstacle to the movements of a bone; but, if the operation be delayed, the muscles also may swell, and add a new and insuperable difficulty to the reduction.*

* As a wrong opinion on a practical point of so much consequence might have an unhappy influence on the fate of many persons, and the reputation of many young practitioners, I shall beg leave to introduce from Sir ASTLEY COOPER some remarks on this subject, for the benefit of those who may not have access to his treatise.

“Of the various accidents which happen to the body, there are few which require a more prompt assistance, or which more directly endanger the reputation of a surgeon, than cases of dislocation. If much time elapse before the attempt at reduction be made, the diffi-

Sir ASTLEY COOPER relates indeed a very extraordinary instance, at first view opposed to what has been just said, of an individual who put his hip in accidentally, after it had been out a number of years. This case does not, however, afford much encouragement for delaying the operation; for the reduction had been unsuccessfully attempted by a number of eminent surgeons. Such extraordinary events ought to have no influence in opposition to the maxims drawn from the experience of every day; and I earnestly hope that practitioners will not risk their reputation, and the happiness of their patients, by an hour's delay in these cases. In regard to hip dislocations, I must say there is the strongest reason to believe, that the intervention of a few days between the accident and the operation will form insuperable obstacles to the reduction of such dislocations in the greater number of cases.

In the attempt made at the Massachusetts General Hospital to reduce this dislocation, it was thought proper to employ the dislocation pullies provided for such purposes. The deponent takes occasion to speak of

culty of accomplishing it is proportionably increased, and it is not unfrequently totally impracticable; and, if the nature of the injury remain unknown, and the luxation consequently unreduced, the patient becomes a living memorial of the surgeon's ignorance, or inattention. In a dislocation of the os femoris, which still remains unreduced, a consultation was held on the nature of the injury, and, after a long consideration, this report was made by one of the surgeons, 'Well, sir, thank Heaven, we are all agreed that there is no dislocation!'—I am of opinion, that three months, for the shoulder, and eight weeks, for the hip, may be fixed as the period from the accident at which it would be imprudent to make the attempt at reduction, except in persons of extremely relaxed fibres, or of advanced age. At the same time, I am fully persuaded, that the shoulder has been reduced at a more distant period from the accident than that mentioned, but in most instances with the results I have been deprecating.

“In very strong muscular persons, I am not disposed, after three months, to make the attempt, finding that the use of the limb is not, when reduced, greater than that which it would have acquired, by having remained in its dislocated state. *Let this be fairly represented to the patient, and then, at his request only, the reduction should be attempted.*”

their use in the following terms. "I do not think that the mechanical powers, such as the wheel and axle, or the pullies are necessary to reduce a dislocated hip, or any other dislocation. They have been sometimes used with effect, but they have oftener been injurious; and what can be effected with them, can be effected without them. It is not the quantum of force which reduces dislocated bones, so much as it is the direction of the force, and this can be given by the hand of skill better than by pullies," &c. These remarks would be perfectly just, if the principal opposition to reducing a dislocation, was made by the ligaments of the injured joint; but, as we have already said, it is now generally understood by surgeons, that the greatest obstacle is muscular contraction. The power exerted by the muscles in such circumstances, is known to be very great, and requires a great force to counteract it. When a bone is displaced, some of the muscles, as we have already shown, are shortened, and contract to accommodate themselves to their new condition; others are put on the stretch, in consequence of the hitching of the bone in an unnatural situation. The last description of muscles are, immediately after the accident, the most efficient causes opposed to the restoration of the bone. The first object to be considered in the attempt to bring the bone to its place, is the application of a power in such a direction as to overcome these muscles, not by sudden, violent efforts, but by a gradual force. When they are strong, this application of force can be more effectually made by pullies, than by the hand, for the muscular resistance is so great, in such cases, as not to be overcome but by pullies, or the hands of many men. The power of a number of persons cannot be exerted steadily, their strength is soon exhausted, and the degree of force applied, must therefore, constantly vary; the muscles of the patient, instead of being overpowered, are stimulated to contract with additional force, by this irregular action. Pullies, on the contrary, act steadily and uniformly, until the muscles, on which they draw, are perfectly extended. The degree of

power applied, may be tolerably well measured by the observation of the surgeon, and increased or diminished, as may be necessary. Here is no interference of a multitude of assistants with each other; no bustle, no unnecessary violence. The direction of the force may be so adapted, as to act on the muscles that resist, and not on others. The only advantage possessed by manual force, which pulleys have not, consists in the facility of varying the direction of the powers, so as not only to overcome the muscles whose action is visible, but that of others, which is not so obvious; and moreover, by these changes to succeed in bringing the head of the bone to the interstice of the muscle, or to the rent in the ligament, through which it may have passed. These advantages may be acquired, however, in an easier way, by overpowering the muscles by pulleys first, and afterwards, if necessary, varying the direction of the limb by the hand. These instruments are therefore of great use in many simple dislocations, and, in such as are extraordinary and difficult, they are indispensable. I am well satisfied that many bad cases of dislocation of the hip can never be reduced without their aid. As to injurious consequences arising from them, I must say, that, though every powerful instrument may be abused, I have never seen any ill effects from pulleys, nor do I perceive that any such can occur, without great inattention.* Sir ASTLEY COOPER, and most surgeons of the present day, very strongly recommend their use. The wheel and axle I have not heard of as being employed in modern days.†

Besides that of the deposition A, which we have been examining, it has been observed, that there was also the negative evidence of three other practitioners. That of one appears in the form of a deposition; that of the others

* It must be understood, that exception should be made for cases, the circumstances of which might justify a great and even dangerous application of force.

† There is one other point in the deposition, to which I am induced to advert, from unwillingness to allow a stigma to attach to the mem-

in the form of testimony in the court of justice. The weight to be attached to these will be the next object of our investigation. Of the three it appears that only one did ever actually examine, or rather see the examination of the patient, and, of course, the opinions of the others are of comparatively small importance. I shall first consider the evidence of the former, contained in the deposition B.*

From this it appears, that the deponent B. was present with the deponent A., "at an examination of Charles Lowell, for a *disease*, or affection of the left hip joint," and he says, "I am of opinion, that it does not arise from dislocation at present existing; but from affection of the muscles, or *some other cause*." That is, the deponent was *present* at an examination in which a most strange mistake made by a number of surgeons, was detected and exposed; and yet, so far as we can discover, did not put his finger to the affected part. For there is nothing in his deposition which would lead us to believe

bers of the medical profession in this country, which I cannot think merited.

Question, by the defendant's attorney. "Is the dislocation of the hip joint an unusual occurrence? and might a skilful surgeon fail in any attempt to reduce it?"

Answer. "A dislocation of the hip joint is very rare, and probably *not one medical man in ten* would be able to reduce it."

Lamentable indeed must be the condition of surgical science in our New England states, if only one practitioner in ten is able to reduce a dislocation of the hip. Can we boast no better fruits from our six medical schools, from all our state medical societies, and our district medical associations? The mode described by the deponent with so much candour, as having been employed by himself, does not appear to be a process very difficult to imitate. "I once," says the deposition, "reduced a hip joint; it was dislocated upwards and backwards; and after pulling it in every direction but the right, it was reduced easily by carrying the knee towards the patient's face. I had the assistance of two men only." This operation might be practised easily by persons of less surgical knowledge. If the medical men of this and the neighbouring states were questioned, I imagine they would tell us, that not one in ten would fail in reducing a dislocation of the hip; making due exceptions for cases of peculiar difficulty, such as those of the ischiatic notch, and those, in which the accident was overlooked or mistaken for a different kind of injury.

* See, in Appendix, deposition B.

that he did more than stand by and witness the examination made by another person. Was it not natural for the deponent A., on making the discovery that the imagined dislocation did not exist, to express himself strongly to the deponent B., and to request him to examine for himself; to point out to him the exact situation of the different parts concerned, and desire him to touch them, that there might be no mistake? and would it not be expected that B., in his turn, should have dropped some expressions of surprise? and would he not have repeated these expressions in his deposition? We hear nothing of this.* The deponent A. made his examination, drew a number of lines about the joint, while the deponent B. remained merely *present*, and seems to have felt very little interest, in a most extraordinary occurrence. How are we to understand all this? The deponent B. it is intimated in the pamphlet of the plaintiff, had been a pupil of A., and consequently perhaps, submitted wholly to his judgment. If this be the fact, we cannot be surprised at the posture he assumed in the affair. But, while it may be said he was right in yielding his judgment to that of a person of superior experience, we must be excused for not admitting that this opinion adds any weight to that of the former. There is another point of view, however, in which we cannot so fully exonerate the deponent; for, although he does not inform us that he examined the nature of the injury, yet, it appears, he was able to get an opinion concerning it, not of a very positive character indeed; which he thus expresses, "That it (the disease or affection) does not arise from dislocation at present existing, but from affection of the muscles, or *some other cause*." Does not this language amount nearly to saying, that, though he could not pretend to state what this disease, or affection was, he was willing to believe that it might arise from an affection of the muscles, or from *some other cause*, but was determined not to believe the existence of dislocation.

* See testimony of THEODORE LINCOLN, annexed to deposition A, in Appendix.

The testimony of the witness C.,* I shall not criticise very minutely, as the circumstances, under which it was given, and the fact of his never having examined the patient, render it of little consequence. "From the nature of this testimony," says the attorney on the same side, "it is not capable of being perfectly reported." The difficulty of reporting it is explained in the pamphlet of the plaintiff, who tells us, that both this practitioner and the witness D., were said to be threatened with a similar prosecution, if this succeeded, and that, from this, or some other cause, the witness laboured under great agitation. For this feeling he is not blameable; but what shall we say to the testimony of a witness, who never saw the object, of whose existence he would testify. He ventures to give an opinion, "that the plaintiff's injury was a *fracture*, not a *derangement* of the bones of the pelvis." Yet this fracture, and derangement, he had never seen, nor had he any precise means, that we hear of, of judging of their existence. The same remark may be applied to the testimony D,† which informs us, that the plaintiff's case "was an injury of the bones of the pelvis." He had no better opportunity of ascertaining the real state of things, than the witness C. Neither of them, as is positively stated by the plaintiff, ever examined him.

It appears that of all the medical men who did examine him, not one doubted that his hip was dislocated, except the deponents A. and B., both of whom saw the patient nine months after the accident. We have already seen that these two are reducible to one; and that the deposition A. gave rise to all the others. Thus we have the imposing testimony of four medical practitioners, really reduced to that of one individual, who, as we have seen, was in this particular instance, misinformed in regard to the circumstance upon which his opinion was principally grounded.

The examination of these depositions and testimonies,

* See Appendix, C. † Ib. D.

will satisfy most men, probably, that while an inclination is displayed to make use of every fact and circumstance, to combat the opinions rendered by my colleagues and myself, yet the arguments adduced in supporting the adverse doctrines have no solidity. If this be true, I might here leave the question of the existence of the dislocation, to be decided by the impartial; and I should be contented so to do, were it not necessary to use every honourable means to repel so gross an imputation as that of subjecting an individual to a cruel operation, from an ignorant, or hasty investigation of his case. I cannot therefore properly omit any thing which may tend to present the true state of this affair in a stronger light, and to clear myself from a charge so odious.

Besides those already employed, there seem to be two other tests, to which this question may be subjected. The first is, the general agreement of the symptoms exhibited in this patient, with the signs of dislocation; and their want of agreement with those of any other injury of the hip. The second will be found in a comparison of the weight of opinion on the opposite sides of the question.

In many cases of dislocation, the changes in the external appearance of the joint are such as to enable us to infer with certainty the displacement of a bone, though they may not show at first view, in what direction it has happened. This is especially true in regard to the hip joint. At present, therefore, it may be best to examine the general phenomena of these dislocations, without attempting to settle the characteristics of any species. The latter must be made a distinct and special subject of consideration.

In studying the external appearances indicative of the displacement of a bone, a kind of knowledge is required, which is not to be found in books. It may be called the anatomy of the superficies of the body, and consists in an acquaintance with the appearances made on the surface of the body, by bones, muscles, and other parts. Our students consider it essential to qualify themselves

thoroughly in the science of the interior arrangement of these organs ; yet, when called for the first time to the examination of an injured joint, they find that the knowledge, of which they had fancied themselves possessed, has vanished from their sight, and left them an obscure and confused group of appearances, among which they cannot with certainty discriminate a single object. For many years I have been in the habit of impressing this subject on the minds of those gentlemen, whom I have had the honour to instruct ; and though I am not certain, that it has gained the attention which its importance merits, I am confident that these lessons have not been without their influence in practice. By having pointed out to them the prominences of the joints in different parts of the body, they learn to observe with more care the external appearances, accustom themselves to the impressions made on the senses of vision, and touch, and thus become prepared to notice the changes in the aspect and relations of all these parts, when disturbed or displaced by accident or disease. The condition of an articulation is sometimes so strangely altered by injuries, that the most scientific eye, and the most practised hand, seek in vain to ascertain with precision, the changes which have taken place. But this obscurity may be cleared away in most cases ; for with sufficient patience and careful observation, the anatomist will rarely fail of satisfying himself of the real state of the injured parts. The advantages of the kind of information noticed above, I have been accustomed to enforce by referring to the skill of those who, practising without a knowledge of anatomy, and therefore constantly liable to do wrong, yet often succeed in doing right, where the most scientific surgeons have failed.

This kind of knowledge of external parts is absolutely necessary in trying the question now at issue ; for, as we cannot see what the interior state of the organs is, in a dislocation, we must judge of it by external signs. These signs may be supposed to be fallacious ; and this is true in regard to a part of them ; while others are to

be considered as carrying with them much the same certainty as ocular inspection of the bones and muscles. To obtain a statement of these symptoms, we must have recourse to works creditable not for their scientific character only. They must also be popular works; that is, such as contain facts considered to be admitted by the medical world. As one, which combines these qualities, I shall select the work of Mr. SAMUEL COOPER. In the part relating to the subject we are upon, he gives us a translation from BOYER, so far interwoven with his own opinions, as to afford us the advantage of the doctrines of the able French surgeon, admitted and adopted into a standard English work.

“The general symptoms termed by BOYER *positive*, or actually present, are, says Mr. COOPER, numerous and clear.” We shall state them, in order that they may be compared with those of our patient.

“1. In dislocations of orbicular joints” (as the shoulder and hip) “and complete luxations of ginglymoid joints,” (as the elbow and knee) “the orbicular surfaces are not at all in contact, and the point where the dislocated bone is lodged, cannot be on the same level with the centre of the cavity from which it has been forced. *Hence a change in the length of the limb.*”

“2. In almost all complete luxations, the *direction of the axis* of the limb is unavoidably altered.

“3. The absolute immobility of the limb, or at least the *inability of performing* certain motions is among the most characteristic symptoms of dislocation.

“4. In dislocations with elongation of the displaced limb, the general and uniform tension of all the muscles arranged along it, gives to these organs an appearance, as if they lay nearer the circumference of the bone, and the limb were *smaller* than its fellow. On the contrary, in dislocations where the limb is shortened, the muscles are relaxed, but, being irritated, they contract, and accommodate themselves to the shortened state of the limb. Hence the extraordinary swelling of the fleshy part,” &c.

“5. The circumference of the joint itself presents alterations of form well deserving attention, and, in order to judge correctly of these symptoms, correct anatomical knowledge is highly important. When the head of a bone articulated by enarthrosis” (a joint with a ball and socket) “has slipped out of the cavity, instead of the plumpness, which previously indicated the natural relaxation of parts, the *head of the dislocated bone may be distinguished at some surrounding point* of the articulation, while, at the articulation itself, may be remarked a *flatness*, caused by one of the neighbouring muscles stretched over the articular cavity, and, more deeply, may be perceived, the outline and depression, produced by the cavity itself.”*

Such are the symptoms which BOYER and Mr. COOPER consider as *positive* signs of dislocation. Let us compare them with the appearances in our patient's case.

The first is “a change in the length of the limb,” because “the articular surfaces are not at all in contact.” This phenomenon was remarkable indeed in our patient ;

* As it is desirable to place the general signs of dislocation in the most distinct point of view, I shall beg leave to make a quotation from the writings of a very able surgeon, and anatomist, Mr. WILSON. In his late lectures before the Royal College of surgeons in London, we find the following account of these symptoms.

“Luxations are productive of some symptoms, which are peculiar to the nature of the accidents, but common to every joint affected by it ; and of others, which must belong to the particular joints.

“Some of the attending symptoms are not of a distinguishing nature, but are common to luxations, fractures, and even violent contusions. Among the last are the deformity and altered shape of the limb, and the pain felt, which is increased by any attempt at motion.

“It is evident, that no luxation can take place, without some change in the form of the joint. In most cases, part of the dislocated bone will be felt, forming a prominence in a new situation, while a vacancy will be perceived in the part from whence it was driven. But these alterations cannot always be detected, from the quantity of blood that may be immediately diffused in and around the joint, or from the swelling and tension, that may have subsequently taken place. If a cylindrical bone is luxated, the extremity farthest from the accident, not partaking of the swelling, will, from its position, and

the limb being *longer than natural*, from two to three inches. Had it been shortened, it might have been alleged, that the neck of the bone was broken, or that the socket was fractured, or that the muscles were contracted ; but it seems incredible, that an elongation so great, taken with the accompanying appearances, can be attributed to any cause, except a change of relation between the head of the bone and its socket, owing to the articular surfaces being “ not at all in contact.”

the general direction of the bone, inform us of the position and situation of the dislocated parts ; and this will be known more accurately, from the naturally perceptible projections of the bone, either not being found in their usual places, or from their being felt in other parts.

“ A change, in general, will be produced in the length, as well as the direction of the limb, and the usual motions of the joint will not take place, even when attempted by the hands of the surgeon. And should the joint have possessed rotatory motion, this will be completely lost. It is not so in a fracture of the bone ; for motion may, at first, be produced by the surgeon in every direction, although crepitus, and a considerable degree of pain will attend the attempt. Indeed, immediately on luxation happening, if it is complete, the bone will admit of some motion, although this in a very short time is prevented, by the contraction of the muscles, which keeps the bone rigidly fixed in its new situation ; but all rotatory motion is generally lost from the first. I have, however, in a dislocation of the shoulder joint, some hours after the accident, found so much motion, that, had not the head of the os brachii been felt in the axilla, and a vacancy been perceptible under the acromion scapulæ, the nature of the accident might have been readily mistaken.

“ A sensation not very dissimilar to crepitus will sometimes be perceived, in attempting to bend the joints of a dislocated limb, before much inflammation has come on, and after it has subsided, which has led to the supposition of the accident being a fracture.

“ When the extremity of a bone has been completely thrust from its socket by violence, the joint having been, previous to this, free from disease, the capsular ligament must always be torn.

“ Cases, however, of incomplete luxation may happen, in which both sets of ligaments, although stretched, shall remain free from laceration.

“ In the reduction of a luxation, the removed bone must first be brought to a level with the edge of its socket, and then by lateral pressure, or rotatory motion, returned to its cavity.

“ The difficulties that attend the reduction of a luxation, will be much increased by the delay, which may have taken place between the time of the accident's happening, and the attempt to remedy it.”

The second change is in "the direction of the axis of the limb." This symptom was even more obvious than the former, the limb being permanently projected in front of the body, so as to form a considerable angle with it. The axis of the limb did not correspond with the axis of the body as it should do, nearly. Its direction was such, that a line continued in the direction of the thigh from the knee forwards, would have struck the ground at some distance in front of the body. There was therefore a very conspicuous alteration "in the direction of the axis of the limb."

Third, "the absolute immobility of the limb," "or at least the inability of performing certain movements." "Absolute immobility" in this instance, there was not indeed, but a decided "inability to perform certain movements," there was; all the motions of the limb were diminished; the power of extending or carrying it backwards, and the motions of flexion, abduction, and adduction were impaired; that of rotation hardly existed. On the whole, the degree of inability, though not so great as in some dislocations, was such as impartial persons would consider to correspond as nearly as might be, with the period of the accident, and the situation of the bone below its socket, on a part, which could not closely confine its motions. The unfortunate patient felt deeply that his locomotive powers were materially circumscribed, and his "inability of performing certain motions," was a source of great unhappiness to him.

Fourth, "In dislocations, with elongation of the displaced limb" all the muscles have a general and uniform tension. They appear hard as if tightly stretched. On the contrary, when the limb is shortened the contracted muscles swell out. There was none of the latter appearance, and the former was as remarkable as it could be, at the end of three months, during which all the muscles had time to accommodate themselves, in some measure, to their unnatural situation; and here I remark that the axioms of BOYER relate to signs presenting themselves immediately on the occurrence of a

dislocation. The lapse of time will diminish the prominence of all the symptoms, of some, to a great, and of others, to a less degree.

Fifth, "The circumference of the joint itself presents alterations of form." The hip in our case was elongated, and the hollow caused by the falling of the trochanter below the socket, was so remarkable that it was noticed by the patient himself, alarmed him, and led him to say to the surgeon, "Dr., explain to me the cause of the hollow on the outside of the injured hip?" "The outline and depression of the cavity" we could not expect to discover in the *hip-joint*, after three months dislocation, though we might in the shoulder. But "the head of the dislocated bone might be distinguished" with due care and attention below and behind its natural cavity.

Thus we find all the positive marks of dislocation existing in this case. Their agreement with the symptoms laid down by the best writers is in every respect as exact as it possibly could be, at the period of our examination. Will any impartial man remain in doubt as to the nature of this accident?

The symptoms of the plaintiff having been shown to correspond with those of a dislocated limb, it may be well to continue the comparison, in order to show, that they do not correspond with any other alleged injury of this part.

From these depositions and testimonies it would appear that it is intended to say, that the existence of certain other injuries than dislocation, would explain the phenomena of this case in a more satisfactory way than the supposition of a dislocation; and that the injuries thus supposed, or alleged to exist, are, 1st, Fracture of the bones of the pelvis. 2d, Contraction and relaxation of muscles, similar to what takes place in certain voluntary motions, or in the hip disease. 3d, An injury of which the precise nature is obscure. Let us then proceed to compare the symptoms of these injuries successively, with the appearances exhibited in the case of the plaintiff.

1. Fracture of the bones of the pelvis.—

The consequences of a fracture of the socket, or any extensive fracture of the pelvis, especially such as could allow the thigh bone to hang down two or three inches, must be exceedingly formidable, and even in a large proportion of cases, fatal. In order to produce such a phenomenon, the pelvis must be crushed in pieces, I should conjecture, for I can only conjecture, since there is not, that I know of, any account of a fracture of the socket, accompanied with material elongation of the limb. On the contrary in all these accidents, the limb is *shortened*, if its length is in any way altered. Let us resort to the authority of Sir ASTLEY COOPER on this point.

He gives us an account of three such cases only. Two are minutely described, the other generally. The first was that of a man, on whom fell a hogshead of sugar. The injured limb was two inches *shorter* than the other. There was a distinct grating of the bones of the pelvis; the knee and foot were turned inwards; the patient died the same evening. The second had the appearance of a dislocation backwards; the symptoms are not related; the patient died in four days. The third, very minutely described, was that of a woman, who had been crushed between a cart and a lamp-post. She lived in a very distressed state from the 8th to the 24th of the month. Sir ASTLEY also informs us that he has known three instances of recovery from simple fracture of the os innominatum. In neither of these was the socket in the slightest degree involved, nor does Sir ASTLEY mention any instances of fracture into the socket, which did not prove fatal.

We may infer, from what is stated by this author, that a fracture of the socket is an accident followed by most violent and dangerous symptoms; and that they are wholly dissimilar to those of the case of our patient. This will more fully appear from his general account of the symptoms of these fractures. “As these accidents are liable to be mistaken for dislocations, and as *any ex-*

tension made for them adds extremely to the patient's sufferings, and is liable to produce fatal consequences, even if there was previously a possibility of recovery, I am anxious to say a few words upon them.

“ When a fracture of the os innominatum happens through the acetabulum, the head of the bone is drawn upwards, and the trochanter somewhat forwards, so that the leg is shortened, and the knee and foot are turned inwards. Such a case then may readily be mistaken for dislocation into the ischiatic notch. If the os innominatum is disjoined from the sacrum, and the pubes and ischium are broken, the limb is a *slight degree shorter* than the other ; but in this case the knee and foot are not turned inwards, but outwards. Of the first of these accidents I have seen two examples, of the latter only one. The accidents are generally to be detected by a crepitus being perceived on the motion of the thigh, if the hand be placed on the crista of the ilium ; and they are attended with more motion than occurs in dislocations.” *

Let us compare the appearances laid down as indications of a fracture of the socket spoken of in the depositions, with the appearances presented in the disordered limb of the plaintiff.

(1.) In his case the limb was *lengthened* ; in fracture of the socket it is *shortened*.

(2.) In him the axis of the limb was changed ; in fracture of the socket, it is not changed.

(3.) In him the power of moving the limb was diminished ; in fracture of the socket, it is increased.

* By the remark that these accidents might be mistaken for dislocation in the ischiatic notch, Sir ASTLEY means the dislocation backwards, and not that backwards and downwards ; for he expressly states the limb to be shortened in every instance of these fractures, whereas in the dislocation downwards it is lengthened. Sir ASTLEY lays down symptoms quite adequate to enable us to distinguish a fracture of the socket from a dislocation. These are a crepitus, or grating of the fractured pieces on each other ; a greater motion of the limb ; violent symptoms of inflammation about the joint, and finally, very distressing effects on the whole body, and even a fatal termination.

(4.) In the plaintiff, the muscles were elongated and tense ; in fracture of the socket, they are shortened and relaxed.

(5.) The form of the hip is changed in both cases, but in a dislocation downwards, it is longer and narrower, and was so in him ; whereas in fracture of the socket, it is shorter and rounder.

(6.) In this case there was no grating of the fractured pieces of bone on each other, or *crepitus* ; in fracture of the socket, this symptom is most remarkable.

(7.) The effects of this injury were not very violent and alarming, the patient was at no time in danger of losing his life ; in fracture of the socket, on the contrary, the consequences are very severe, and, in the greater number of instances, even fatal.

Possibly it may be alleged, that I have assumed for the parallel the existence of the worst case of this injury, and that if, instead of it, I had taken one of the instances of fracture of the os innominatum, which terminated favourably, the resemblance between the two cases would have been greater. A little reflection only is required to see, that a fracture of the os ilium across its superior part, or a fracture of the parts of either of the other bones, out of the socket, would not for a moment be suspected as a cause of the phenomena in our case. To afford grounds for the supposition of elongation of the limb being caused by injury of the bones of the pelvis, this injury must not only be presumed to extend through the socket, but moreover there must be together with a fracture of the socket, a very extensive separation of the broken parts, a corresponding rupture of ligaments and an extensive laceration of the superjacent muscles. Such must be the state of things supposed to exist in an injury, which should be adequate to the explanation of the appearances in this case. I say, *supposed to exist*, for I am not informed that there is any such case on record ; nor do I believe that such an occurrence as a fracture sufficient to give three inches' increased length to a limb, could consist with the patient's life for a single hour.

From the comparison made above, it seems there is no great similarity between the symptoms of this case, and those consequent on any known, or supposable injury of the bones of the pelvis.

2. Contraction and relaxation of the muscles. The words are these: "As for the apparent lengthening of the affected limb, I think that is owing to the preternatural contraction and relaxation of the muscles situated about the hips; and is made to appear so by the twisting of the bones of the pelvis on the spine. Any person, when sitting on a chair, can by an exertion of the muscles make one knee project beyond the other, as much as Lowell's did when I saw him. The same lengthening of the limb takes place in a disease of the hip, called the hip disease, where no external violence has been received." There seems to be a slight incongruity between these two statements; for it is first said that the apparent lengthening of this limb is owing to the contraction and relaxation of the muscles; which we must suppose to have been brought on by the violence done to the part; but afterwards that the same lengthening may take place in a perfectly sound state of the bones; and in the disease of the hip, without external violence. To which of these causes is it intended to attribute this appearance? As the nature of the investigation in which we are engaged, compels me to consider, not only alleged, but also supposed cases; it becomes necessary to make three separate questions; and to examine, 1st, whether the elongation and other phenomena were caused by a contraction and relaxation of muscles, consequent on violence; 2dly, whether this contraction and relaxation might not be a voluntary exertion; 3d, whether it might not be the result of a complaint similar to the hip disease.

First, a contraction of muscles is a frequent consequence of a wound, such as is made in puncturing a part with a nail, a needle, and sometimes a lancet; but as an effect of a bruise or contusion, it is a rare occurrence. A contraction brought on by a bruise,

could take place only from extraordinary violence, contusing or breaking down the texture of the muscles, and thus producing inflammation, with its concomitant phenomena, and a subsequent rigidity from effusion of coagulated lymph, into the interstices of the muscular fibres.

In the case of the plaintiff the violence was not greater than we daily hear of from the overturning of stage-coaches and other carriages. In the second place, this violence was not inflicted directly on the hip, but on the back and thighs ; and in the third place, the consequent symptoms were not such as to lead to any suspicion of severe muscular inflammation. We have not therefore any good reason for attributing the contraction to the direct effects of the accident. If we suppose a case of contraction actually following a violent injury, the train of events would proceed something in this way. The patient being thrown from his horse, falling directly on the hip, would, notwithstanding the great violence, find himself able to stand and walk at first. Soon after, the hip would swell and inflame, with much affection of the whole constitution. When the inflammatory symptoms had subsided, the muscles about the hip would be found contracted and indurated. The contraction would increase, and draw the limb more and more toward the body ; soon the limb would waste away, and its power of motion gradually diminish, till the part became wholly, or in a great measure, useless. Such was not the history of our patient. Immediately on his falling he found himself maimed ; his power of walking was at an end, the limb was at once distorted, and this to so great an extent, that he immediately desired surgical aid, to set it in order ; afterwards he lay 15 or 16 days without extraordinary swelling, or other marks of inflammation. When he began to use the limb, its motions were limited, and difficult ; but since, they have been regularly increasing, as always happens in old dislocations from the formation of an artificial socket.

Let us in the next place, consider this contraction and relaxation of muscles, as an effect of voluntary exertion :

“ Any person sitting in a chair, can, by an exertion of the muscles, make one knee project beyond the other, as much as Lowell’s did when I saw him.”

This remark is ingenious and true. When in the sitting posture, the bone of the opposite side may be made a pivot, whereon to turn the pelvis, which may be twisted and lowered, and the limb of the side protruded, by the aid of a constant and considerable effort. But, if the posture of the body be changed from sitting to upright, this kind of distortion vanishes, and it is not possible to continue the protrusion. Had such been the cause of the plaintiff’s appearance, it would have been easy to have detected the fallacy, by examining him in different positions, and especially by causing him to walk, and thus rest the weight of the body on the disordered part. His difficulty continued the same, however, in all situations, and under all circumstances. Whether he was sitting, lying, standing, or walking ; when his mind was occupied with other subjects ; when he was submitted to the action of cords and pullies, and of manual force ; when he was in his ordinary condition of health, as well as when reduced by the relaxing power of bleeding, and other debilitating causes ;—under all these circumstances, the disordered limb remained much too long.

Lastly, we are to inquire, whether the supposed contraction and relaxation of muscles could be the effect of a complaint like the hip disease ? That there is some degree of similarity between the appearances in this case, and those of the hip disease, must be admitted ; but the resemblance fails in too many important and essential particulars, to allow us to confound the two with each other, or to authorize us to consider them as arising from an identical cause. The hip disease is preceded by a bad state of the constitution, and the first remarkable occurrence is a sort of limping gait, with a propensity to stumble, if the patient be a child, and an ap-

parent weakness of the limb. This is followed by a pain in the knee, or rather in the thigh, a little above the knee; the limb wastes, becomes flaccid, and seems to lengthen a little. In moving the thigh bone in its socket, there is usually much pain. As the disease advances, the limb grows shorter, for it quits its socket, and is ultimately drawn up to the extent of a number of inches, the thigh being bent forward. The joint suppurates; matter is discharged through one or more apertures; and ultimately pieces of bone are separated, and expelled through the wounds.*

The history of this disease shows that it has not any

* It may be thought necessary to advance the authority of some author, to afford a more fair comparison of symptoms; and I therefore quote from Mr. FORD, who is considered a standard writer on this disease. "The caries of the hip joint, always painful in its consequences, and sometimes fatal in its event, steals on at first so imperceptibly, and arrests the attention so little, that it is scarcely considered as a serious disease. The constitution is not at first materially affected by it; paleness of countenance, fits of languor and heaviness, succeeded by a proportional flow of spirits, and sudden exertions, are accidents so common in the lives of young persons, that they pass for common circumstances, and attract but little attention. There are, however, symptoms often accompanying the first pathognomic marks of this disease, which are, a sort of limping gait, lameness scarcely discernible, and a weakness of the leg and thigh just beginning to be apparent.

"About this time, the limb, on strict examination, will be found, both in the thigh, and on the calf of the leg, to be really lessened in its circumference. A striking alteration likewise takes place with regard to its length. It is more or less elongated, the elongation is visible, and the degree of it ascertainable. Let the patient be placed in a horizontal position, with both his legs extended properly, for a comparison with each other; the patella, with the condyles of the thigh bone, will appear in the diseased limb, manifestly lower than the same bones on the sound side. It may be still farther ascertained by an inspection and comparison of the relative situations of the great trochanter, or the internal malleolar process of the tibia, with the corresponding parts of the sound limb. On viewing attentively the patient in an erect posture, it is clearly discernible, that there is on the diseased side, an alteration with respect to the natural fulness and convexity of the nates, that part appearing flattened, which is usually most prominent; and a little below, towards the thigh, there is a degree of swelling different from, and strongly contrasted to, the natural appearances of the sound limb."

similarity to that of the plaintiff, excepting in the elongation and flexion of the limb. The former symptom is slight, compared to what happened in him, and is only apparent,* since the lengthening actually arises from the descent of the pelvis on the lame side.

In Mr. LOWELL's case, the elongation of the limb was not only apparent but real; and in degree far exceeding what is known in any case of hip disease. The knee projected beyond the other, in a manner perfectly obvious, and to an extent by measurement, of about three inches. The concomitant circumstances were quite different from those of a diseased hip. He had no marks of inflammation, except, as we are told, for a few days after the accident, during which, the usual swelling and pain of a dislocation were seen to exist. When he recovered from its first effects, and from that time to the present, he has been as free from the signs of inflammation, as a man with a thigh bone out of its socket could well be. He had no pain nor distress on the limb being moved in any direction, no uneasiness on putting it to the ground. The pelvis

* The cause of the fallacious appearance of elongation in the hip case, has not been understood till of late years, and even now does not seem to be generally adverted to by practitioners of surgery. Mr. CROWTHER, in his treatise on white swelling, having obtained the hint from Mr. JOHN HUNTER, first placed this matter in a distinct light. According to him there is no real lengthening of the limb in the hip case, but the apparent lengthening is owing to the inclination of the pelvis to the lame side, in consequence of which the limb descends lower than before; so that even when the patient is placed on his back, and in bed, the disordered limb seems longer than the other. The obliquity of the pelvis in this case, is, in the opinion of Mr. CROWTHER to be ascribed to the patient's endeavouring to throw the weight of the body on the sound side. The cavity of the joint being diseased and tender, he is unwilling to rest the weight of the body on that side; and when he does so he does it with a bent limb, in order that the head of the thigh bone should not press so directly into the diseased socket. Formerly it was thought that the limb was pushed down by collections of fluids in the joint, by relaxation of the ligaments and other causes. If however, the limb is measured from the joint to the heel, its length will be found to be the same as that of the other side.

was not more inclined than must happen in a dislocation downwards. The muscles put on the strain tend to approximate their two points of attachment; hence it must happen that in a dislocation downwards and backwards, the Psoas and Iliacus, the Pectineus, and especially the fore part of the Gluteus medius will pull the pelvis downwards, unless the head of the thigh bone is so wedged against it, as to prop it up. On the whole, it may be inferred, that there is little similarity in this to a scrophulous hip case, and, of course, the causes applied to explain the elongation of the limb in the latter, will not do it in the former.

The flexion of the limb considered alone, is not very important as a discriminating symptom, because it is found to accompany many disorders of the limb, yet we must notice that in few of them is the degree of contraction so great as in this dislocation.

In the remarks made above, the phraseology employed has not been adverted to, but it is now necessary to state that the terms in which this proposition is laid down, are objectionable. Namely, that the apparent lengthening of the affected limb, "is owing to the preternatural *contraction* and *relaxation* of the muscles about the hips." Physiologists would admit, I suppose, that a relaxation of muscles might allow a disordered limb to become longer, and that a contraction of muscles would shorten it. Then if to lengthen a limb the muscles must be relaxed, such should have been the condition of these organs in our case; that is, the muscles about the hip must have been relaxed. But if these muscles had been relaxed, the limb would have been suspended from the body, all the joints being straightened, like those of a paralytic, which was not the case; for, instead of hanging down, it was actively and permanently drawn forwards towards the body. Whence it follows, that the complaint could not have been simple relaxation.

Now take the case of contraction. If any one muscle were preternaturally contracted, it would undoubtedly *shorten* the limb, although the other muscles were

relaxed ; a contraction of the Biceps, bends the arm, a contraction of the Tibialis draws up the foot, and a contraction of the Psoas magnus would shorten the lower extremity. Thus it follows, that an elongated limb cannot coexist with a preternatural contraction of muscles ; but the plaintiff's limb was elongated, and of consequence his affection could not have arisen from a preternatural contraction of the muscles.

3. An injury of which the precise nature is obscure.

“ It is difficult to determine,” says the deponent A., “ in the case of injuries of the hip, precisely what the injury of the bones is ; but it has frequently happened within my knowledge, that by a fall directly on the hip joint, though the bone was not dislocated, as was evident by the natural position of the foot and limb generally, and from its being moved by the hand of the surgeon in all directions, yet the patient has never recovered from his lameness, and in several instances, they have never been able to walk afterwards.” The object of these remarks is, I suppose, to intimate the suspicion, that Mr. LOWELL's case might be one of these obscure injuries of the hip, in which it is difficult to determine “ precisely what the injury of the bone is.” Though to compare the known with the unknown, is the province of mathematics, and cannot be expected of surgery, it will not, I think, be impossible to show, first, that the real nature of these cases may be discovered by careful investigation ; and second, that the case of Mr. LOWELL is evidently different from these.

To this kind of accident, I would then ask the attention of surgical practitioners. It usually occurs in aged persons, from a fall directly on the trochanter. The patient, after the occurrence of the accident, finds himself lamed, and the hip painful. On moving the limb, great pain is produced in the joint, and often a spasmodic affection of the muscles, which in some instances manifests itself also when the limb is not moved. The circumstances most to be noted, are, that the limb is neither shortened nor turned out, nor is there any grat-

ing of the bones ; yet the patient does not at all recover from the lameness ; on the contrary, it for some time increases. Ultimately indeed, the foot turns out, and the limb shortens slowly. The patient never regains the natural use of the limb.

Is not this accident a fracture of the neck of the thigh bone, within the capsular ligament ? But why does not the limb become shorter, and the foot turn out, and the fractured bones grate, as usual in such cases ? Because, we answer, the capsular ligament is not torn. Therefore, the limb cannot at first become shorter, nor can the foot turn out materially, nor the broken pieces move on each other to cause a grating.*

* When the grating has been ascertained, and its situation distinguished, there can be no doubt of the existence of fracture of the neck of the thigh bone, even though the shortening of the limb, and other concomitant circumstances, should not present themselves ; but I beg leave to say that I have known instances of fall on the trochanter, in which the grating could not be distinguished, yet a permanent lameness and shrinking of the limb occurred. Can there be a reasonable doubt as to the nature of these cases ? if they are not fractures of the neck of the thigh bone, what are they ? They cannot be caused by a rupture of the inter-articular ligament. A fracture of the socket is attended with symptoms incomparably more violent. No one will consider them as the phenomena of dislocation. They must, I think, be fairly considered as fractures of the neck of the thigh bone, though not accompanied with the most common symptoms of that accident. In a long and interesting conversation on surgical subjects, which I had last summer with a gentleman, whose genius and practical skill do honour to this country, as they would to any other, and of whose character I cannot sufficiently express my respect, I mean Dr. PHYSICK, of Philadelphia ; I stated to him the general appearances in such injuries of the hip, for the purpose of eliciting his opinion ; not referring to the plaintiff's dislocation, which was not in my mind at the time. Dr. PHYSICK promptly replied, (my much valued friend, Dr. HORNER, the anatomist, being present,) that they were undoubtedly instances of fracture within the capsular ligament of the hip joint.

The controversy between the English and French surgeons, in regard to the possibility of a union in the fracture of the neck of the os femoris is well known ; and to those who have attentively read what Sir ASTLEY COOPER has written, it will appear to be a point settled, that true fractures of the neck of the thigh bone, within the capsular ligament do never unite. In RICHERAND's late work, there

The shortening takes place afterwards, from the contraction of muscles, and the gradual absorption or wasting of the ligament.

When the capsule is torn through at the time of the fracture, the ordinary phenomena of shortening, &c. present themselves at first.

I may venture to say then, that, whenever these obscure injuries are followed by the alleged effects, that is, by a permanent lameness, or an inability ever to walk afterwards, they are truly cases of fracture of the neck of the thigh bone. Then, if we make any other comparison, it must be with the signs of this accident, and we may compare the symptoms of our case with fracture of the neck of the thigh bone with the usual symptoms, with fracture of the neck of the thigh bone with unusual symptoms, and with fracture of the neck of the thigh bone without distinct symptoms.

In the first case, namely, the fracture of the neck of the thigh bone with the usual symptoms, every surgeon knows that the limb is *shortened*, the foot is remarkably turned out, and the broken bones produce a grating. This is quite different from the plaintiff's case.

In the second, or fracture with unusual symptoms, the foot is *turned in*, the limb is shortened, though slightly, the crepitus, or grating, may be felt.* This case will

is a curious passage relating to this dispute, which shows that he is not willing to adopt the opinion of Sir ASTLEY on this point, though he praises him on others. "Such persevering researches," says RICHERAND, "to attain the best means of treating fractures of the neck of the femur would have been puerile, if, as Sir A. COOPER has said in a recent work, these fractures were not susceptible of consolidation. How shall we explain so strange an assertion of this celebrated English surgeon, who reads little, it is true, but might have seen in all anatomical museums, whole *ossuaries* of fracture of the neck of the thigh bone consolidated perfectly, or partially."

* This peculiar turning in of the thigh, in certain instances, has been said to be owing to the fracture being on the outside of the insertions of the muscles rotating outwards; so that they lose their control of the limb, while some of the inward rotators are still attached to the bone, and must of course draw the limb inwards.

not, I suppose, be thought to resemble that of Mr. LOWELL'S.

The third is, when there are no symptoms of a distinct character, and this seems to be the case more especially alluded to in the deposition. If there are no symptoms attendant on the accident, and none afterwards, the case is very different from ours, in which the symptoms are strongly marked. And again, if, though there were no symptoms immediately following the accident, yet some presented themselves at a subsequent period, they would always, in a case of permanent lameness, be accompanied, as already shown, with more or less shortening of the limb, which is the state opposite to that of the plaintiff.

We might suppose any other possible injury of this part, as, for example, injury of the orbicular or the internal ligament, inflammation of the synovial membrane of the joint, contusions of the muscles, or tendons; and show in a satisfactory manner, I apprehend, by comparing the symptoms, that none of them resemble the strongly marked characteristics of the plaintiff's injury.

Thus it seems, that a comparison of the features of this, with those of the various affections of the hip joint, presents no accordance of the former with those of any known or supposed injury of this part, except a displacement of the limb in a direction downwards, or below its socket; and I may add that, out of nine cases of dislocation of the thigh from violence, which have fallen under my notice, no one has exhibited more distinct marks than this, of a change of relation between the head of the bone and its natural cavity.

SOME individuals may be disposed to believe, that the direct testimony of professional men would be more satisfactory than any argumentative discussion of the merits of a case not easy to comprehend, without bestowing on it more time and attention than they are willing to give. They ask for the opinion of competent and impartial judges, who have had an opportunity of actual examination of the disordered parts. Unnecessarily as the more direct application of this test may seem, I cannot decline any mode of trying the question, which appears calculated to dissipate the obscurity that has gathered over it.

From the account we have already given, it appears, that the medical gentlemen who examined, or were supposed to have examined, this case, delivered opinions absolutely opposed to each other. In order to form a just estimate of these clashing judgments, we must consider the number of individuals on each side, together with their capacity and opportunity for judging, and the degree of impartiality, with which they might be supposed to view the facts.

Four medical practitioners have deposed or testified, that the symptoms did *not* arise from dislocation, but from injury of the pelvis, or some other cause.

The first of these four is the deponent A. The testimony of this deponent should be considered very important, in what relates to experience in surgery, and knowledge of anatomy. On the other hand it must be noticed, that he does not speak of having seen more than one case of hip dislocation, so that his experience, on *this subject*, loses some of its weight. Then as to the period of examination, it will be recollected, that he did not see the patient till *nine months after the accident*, when considerable changes of appearance must necessarily have occurred. Further, that he examined once, and once only.

The second deponent is the gentleman who was *present* at the examination of the deponent A. His deposition is evidently grounded on the opinion of the

other, and must be considered as adding little if any weight to it.

The third and fourth practitioners on this side, never examined the patient. They founded their opinion on observations not stated, but which may be presumed to have been drawn from a cursory sight of the plaintiff in the court house, at a distance of time not very far from three years from that of his injury. They could not therefore be expected to be very good judges of his difficulty.

From this view it appears that only one of the four actually examined for himself, and it must follow that we cannot admit the testimony of more than one individual as affording any direct support to the negative opinion, that this bone was not displaced.

Let us next consider the positive testimony.

In presenting the evidence in favour of the dislocation, I am compelled to place my own before that of my colleagues. Not that I would wish to have it considered as of more weight than that of other gentlemen, but because my opinion was formed and given before theirs; and if it were an erroneous one, I should desire to take the imputation from them to myself. The comparison I wish to make will relate to two points: first, the epoch of the examination; second, the extent or degree of this examination.

As to the first point, the epoch of examination, it has been already stated, that I examined the patient three months from the occurrence of his accident, soon after he had begun to move about from his confinement, while he was still on crutches, and before he had made any great use of his limb. The deponent did not examine till nine months from the accident, six months after my examination, when the patient had learnt to use his limb considerably, and when, of course, all its appearances must have undergone material alterations.

Secondly, as to the extent of the examination. When the patient was first subjected to my inspection, I adopted various modes of satisfying myself what his in-

jury was, but I would not decide definitively at once. I took time to examine the matter, looked into Sir ASTLEY COOPER'S book, and obtained all the information I could ; then I examined the patient a second time, put him into various positions, examined the prominences of the bones ; gave his limb all the motions it would receive, and then made up my judgment. After this I had a third and a more full opportunity of exploring the nature of the case ; he was placed on a table, and operated on for a reduction of the limb, between one and two hours. During this time the limb was moved in various directions, the prominences and depressions of bones felt and indicated to gentlemen around, and by some among these, the head of the bone itself was felt, or supposed to be felt, and pointed out. The deponent A., on the other hand, made but a single examination, and that in the presence of only one medical person, so far as we are told ; this examination was never repeated.

The testimony next to be considered on this side, is that of the consulting physicians and surgeons of the Massachusetts General Hospital ; namely, Drs. DAVID TOWNSEND, THOMAS WELSH, JAMES MANN, and WILLIAM SPOONER. The patient, after having been conveyed to the Hospital, was submitted to the inspection of these gentlemen. They were desired to examine whether the bone were dislocated or not, and to consider whether, if so, any attempt to reduce it were justifiable. They deliberately made their examinations, and pronounced that a dislocation did exist. As to the reduction, they were all of opinion it could not be effected, but thought if the patient insisted on it, that it would be justifiable to give him the trial. This trial was made before them, they had opportunity of again seeing and examining ; they did examine repeatedly and constantly through the whole operation ; and, though " the bone was not reduced," they did not the less believe it was out of place, and I presume they continue to believe it unto this day.

Perhaps it will be said that these gentlemen were influenced by the judgment I had already given, or that they were unwilling, through delicacy, to make any opposition to it. In reply to such remarks, I must say, that they have always been in the habit of very free discussion with me, on doubtful questions in the Hospital, and from these discussions I have often received much light, and the patients much advantage. My habits of intercourse with most of these gentlemen have not been sufficiently close to give me the means of operating on them through the medium of private friendship, since with some I have not exchanged a word for years excepting at these consultations. They are none of them of an age to be swayed by me, contrary to their own judgment, and have had experience enough to enable them to make up their minds on cases like this with perfect independence.*

* These physicians are in truth as venerable for age as they are for experience, and public service ; and I cannot but regret, and I trust every man of character who reads this trial will also regret, that the attorney for the defendant should have indulged himself so freely in expressions derogatory to the reputation and injurious to the feelings of such gentlemen. In order to remove the unfavourable impressions which the course pursued by him may have made in regard to them, I shall take the liberty to state who they are.

Let it be remembered that the consulting physicians at the Hospital, in the part they took in this case, were performing a public and a gratuitous service ; moreover, that the patient and his surgeon, the plaintiff and defendant, were utterly unknown to them.—Three of these gentlemen were surgeons in the army of the revolution. Dr. TOWNSEND, the friend of the late governor of this state, was in the American army during the whole of the war of Independence, and for the last eighteen years, has been surgeon of the Marine Hospital of this department, where he must have had great opportunities for surgical experience. Dr. WELSH was also surgeon in the American army, and has been for a great number of years, health physician of the port of Boston, has held many honourable offices in the profession, and among others that of Vice President of the State Medical Society. Dr. MANN was also surgeon during the whole revolutionary war, and held a distinguished surgical rank in the last war with Great Britain, and does so at this time. He is very honourably known as the author of a valuable treatise on the Cholera of infants, of Medical Sketches of the late war, and other meritorious publications. Dr. SPOONER is an

Let me repeat that the four consulting physicians above named, saw this case three months after the injury; they had most of them seen dislocations of this kind, and on a full examination of the disordered part, were unanimously of opinion that the bone was out of joint. Compare their judgments, thus formed, with that of the deponent B., who was *present* at an examination; and with that of the witnesses C., and D., who never examined, nor were even *present* at any examination.

The affirmative testimony is not finished. The history of the case already given, shows that the plaintiff afterwards applied to a very experienced practitioner of surgery, who was so satisfied of the existence of a dislocation, as to proceed, in company with other practitioners and students to attempt the reduction of the limb by the most thorough and strenuous efforts. This was a short time after the trial at the Hospital.

In fourteen days more, the persevering plaintiff was induced to apply to one celebrated for his practical skill in reducing bones. He also made an attempt to reduce the dislocation, and of course we have the strongest reason to presume he believed in its existence.

Edinburgh graduate, of about 1783, a gentleman distinguished for his frank and independent character, and from whose sentiments I take pleasure in saying I have derived particular benefit in the Hospital.

Are the names of such persons proper subjects for the jeers of a lawyer, to be thrown out in a court of justice, and afterwards distributed through the country? and would the strength of the argument have been weakened by the omission of witticisms on the characters of these individuals?

Whatever may have been the prejudices existing in the minds of the court and the jury, I think I may venture to say, that if at the time of this affair it had been necessary to select four gentlemen qualified by their general reputation and their experience to judge in this case, no other four practitioners could have been more properly chosen from the state of Massachusetts;—I may go farther, and say, from the whole of this section of the country.

Respectable as they are, and laborious as have been their services, they are not, as the attorney tells us, when he would excite sympathy for his client, “nursed in the lap of ease.” Every one of these gentlemen, after a life of severe public and private duties, is still called on to exert himself in an honourable slavery to the labours of his office and profession.

The whole of this mass of opinion in favour of the existence of a dislocation, was formed on examinations which took place about three months only from the time of the accident.* When this fact is duly considered, and when in connexion with it we regard the number of those who examined, the nature of the examination they made, their respective ability to form a solid judgment, it must I think be admitted, that it would be difficult to have a greater weight of testimony as to any fact of this description; and that on the other side, the negative evidence of the deponent A., with the addition of that of the deponent B., founded on an examination six months later, must be viewed rather as a contrast to the affirmative, than a refutation of it.

We have something still to add. The plaintiff, after the third attempt made on him, quitted Boston to return to his own state. On his way home, it appears that he took the advice of Dr. BENJAMIN BROWN, of Waldoboro, in the state of Maine, a practitioner of great experience and respectability. His opinion as expressed in his deposition was, that the "plaintiff's inability or lameness is a simple luxation of the head of the thigh bone, and that with skilful treatment and prudent management at the time of recent injury," "the plaintiff might now have the use of his limbs."†

* It might be thought I should adduce the practice of the defendants in support of the opinion that the limb was actually dislocated at first, contrary to what appears to have been the notion of the deponent A. On the other hand, it might with equal truth be said, that their subsequent practice is opposed to the doctrine of a dislocation existing at present. What degree of weight is to be attached to either, I do not think it necessary to inquire at present. It is sufficient perhaps to show I have not forgotten that these gentlemen did make an examination of the case; though not after it became a subject of litigation.

† On this very distinct and positive testimony, the defendant's attorney has commented, with many sarcastic expressions.—The testimony is, however, really of much weight. Dr. BROWN was called to see the patient by himself; he had experience on the particular subject in question, since it seems he was "in the medical and surgical department of the United States during the term of five years, during which,"

Finally, we have the testimony of Dr. ESTABROOK, to deprive us of a supposition which otherwise might have been entertained. Sir ASTLEY COOPER relates, as we have seen, the case of a man, who having a dislocated hip, was subjected to the skill of many surgeons without success, and at last, after a lapse of years, was suddenly cured by the bone slipping spontaneously into its socket. Some ingenious persons might think it proper to intimate, that during the six months between our examination and that of the deponent A, the plaintiff's bone might have returned into its socket in a similar manner. But Dr. ESTABROOK deposes, that "Jan. 23, 1822 [1823], he examined LOWELL's hip and *found it dislocated; the head of the bone was out of the socket; with skilful treatment he might have recovered the use of the hip.*" The examination and opinion of this gentleman was as independent of ours in its circumstances as it was distant in time. None of us, to my knowledge, communicated with either of the physicians of Maine, whose depositions are here given.

This testimony is too forcible to require any rhetoric to display it. There is however one more fact to add to its weight. The patient still lives; still carries about with him the signs of his injury, obvious to every beholder; and although the gradual formation of an artificial socket will diminish his trouble, and obscure his symptoms, he must have an elongated and distorted limb while he lives.

says he, "I was in the land and sea service in the revolutionary war; I have been in several engagements both on the sea and on the land, in which I have performed many surgical operations. I have seen and reduced several dislocations of the head of the os femoris or thigh bone." So far as I can learn, there is not in the state of Maine a medical gentleman more distinguished for professional experience and integrity of character than Dr. BROWN.

HAVING thus concluded my remarks concerning the first of the two propositions laid down above, viz. *that no dislocation existed in the case of Mr. Lowell*, and having as I trust made it sufficiently evident that a dislocation did exist, I would now state that this is really the essential point to be proved. As to the particular species of dislocation, it is much less important that the profession or the public should agree with me in opinion. In the trial, however, it happened, that the defendant's attorney, availing himself of some extracts from the work of Sir ASTLEY COOPER on dislocation, made it appear, that in the opinion of this author, no such species of dislocation could exist, as that I had assigned. Whence the court and jury were made to believe, that, if we had been in error as to the kind of dislocation, we might have been so even as to the existence of any dislocation. Had those who examined the case, been present as witnesses in a court of justice, it would not have been difficult for them to have made it appear, that the two questions might and ought to have been separated from each other. As the matter actually stands, I am called on to show more precisely the grounds on which I formed my opinion of the particular kind of displacement; and this appears to be the more necessary, because the attorney has employed, in regard to this opinion, terms applicable to the most gross ignorance of surgery and anatomy. "The account given by Dr. WARREN," he says "will prove to be a complete fallacy," "a most egregious error." "Its refutation will be established on the most obvious principles of anatomy, which, it will appear, have not only been disregarded by these learned doctors, but that their conclusion has been adopted in absolute defiance of them." Let us again enquire whether this language is authorized by facts.

In order rightly to comprehend the case, it is necessary to attend to the distinctions between the different kinds of dislocations of the the thigh bone, or os femoris, on the hip bone, or os innominatum; and to under-

stand the nature of these distinctions we must have some acquaintance with the form of the bone principally concerned in them.

This is called os innominatum. It is a large flat bone spreading out above, and contracted below. Towards the lower part is seen that deep excavation, or socket, called acetabulum, which receives the head of the thigh bone. To render its anatomy more intelligible to those not versed in anatomical studies, I have annexed a representation of it, with indications of the parts most connected with the questions to be discussed.

PLATE I.

A lateral view of the os innominatum of the left side, reduced about one third from the natural size of this bone in an adult; the acetabulum being placed on a level with the eye.

A. The acetabulum.

B. The posterior, inferior, spinous process of the ilium.

C. The tuberosity of the ischium.

D. The foramen ovale.

E. Anterior extremity of the pubes.

F. Spinous process of the ischium.

aa. A line denoting the situation of the ligament, which extends from the tuberosity of the ischium, to the posterior, inferior, spinous process of the ilium, forming the posterior boundary of the ischiatic notch.

bb. A line denoting the situation of the ligament which passes from the spinous process of the ischium, to the side of the os sacrum, dividing the ischiatic notch into two unequal parts.

ccc. Three lines marking those parts of the os innominatum where the ilium, ischium, and pubes are connected by cartilage, before their ossification is effected.

dd. A circle marking that part of the bone, on which the head of the femur rests when it is dislocated backwards and upwards on the Dorsum ilii.

ee. A circle marking the situation of the head of the femur, when dislocated backwards to the superior part of the ischiatic notch.

ff. A circle marking the situation of the head of the femur, in a dislocation backwards and *downwards* on the inferior part of the ischiatic notch, and os ischium.

gg. A circle showing the situation of the head of the femur, when dislocated forwards and upwards, on the os pubis.

hh. A circle showing the situation of the head of the bone, in a dislocation forwards and downwards, on the foramen ovale.

In this view the bone appears as one, and is actually so in the full grown body, but in the earlier periods of life it consists of three separate bones, whose connection is formed by cartilage. The three bones are called ilium, ischium, and pubes; they meet together in the socket. The ilium is the uppermost and broadest; rounded at the top, and gradually contracting below. The ischium is the lowest of the three, and has the letters *C*, and *F*, in the plate. The pubes is the anterior, or front bone, and has at its extreme part, the letter *E*. In order more distinctly to indicate the extent and bounds of each of these bones, three straight lines have been drawn from without to the interior of the socket, each marked *c*. The part above the two superior lines, is ilium; that below the right hand line, ischium; and that below the left hand line, pubes. The three bones, uniting, form the socket. When the human body approaches the adult age these bones coalesce, or co-ossify into one, called the os innominatum. The broad upper part of it is denominated the dorsum of the ilium, the lowest part is called the tuberosity of the ischium. The projection, on the right, marked *B*, is the posterior, inferior, spinous process of the ilium. The projection marked *F*, is the spinous process of the ischium. *D*, shows imperfectly the situation of the foramen ovale. The line marked *a a*,* is the posterior boundary

* Lines can give no idea of the form, and an imperfect one only of the situation of these ligaments, for the breadth of the larger lig-

of the ischiatic notch, and shows the situation of the larger sacro-sciatic ligament. The line *bb* shows the situation of the smaller sacro-sciatic ligament. The last divides the ischiatic notch into two parts, an upper larger, and a lower smaller, both of which are converted into holes, or foramina by the first.

In order to prevent any misapprehension as to the last mentioned point of anatomy, I shall illustrate and confirm what has been said in regard to it, by the authority of the best authors and anatomists. This is especially necessary, for the two following reasons; 1st, that the part alluded to is more particularly concerned with the subject we are to examine, and 2d, that there is evidently some misunderstanding actually existing in regard to it, which may be one cause of the apparent difference of opinion, between different surgical practitioners and authors. For the purpose of illustration, I shall refer to the most celebrated standard continental works on anatomy, since it is well known, by English physicians, and regretted, that there is not an accurate and minute system of anatomy in the English language.* Our American anatomists have therefore employed, as far as I know, the publications of the continental writers of Europe; and this has been my practice, since I had the honour to be a humble teacher of the science.

Than Soemmerring of Goettingen there is no greater living authority in anatomy. His elegant monographic treatises on the eye, on the ear, on the organs of taste,

ament varies from half an inch to more than two inches. The lines serve, however, to show the manner in which they constitute the two foramina.

* The Edinburgh system of anatomy is a compilation of a heterogeneous kind, very deficient in the descriptive part of the organs most concerned in surgical practice. This is the most popular work in Great Britain. But I cannot help expressing surprise that among the numerous translations of French and other continental books, a translation of the system of Soemmerring, or of that of Sabatier, Boyer, or Bichât, is not to be found.

In our own country the late Dr. Wistar has published an excellent treatise on anatomy, but the descriptions were neither intended nor required to be minute, like those of the authors mentioned above.

and of smell, as well as on other subjects are known to all anatomists. His general treatise on anatomy, entitled “*De Corporis Humani Fabricâ,*” contains the following description of the part alluded to, as particularly implicated in this discussion.*

“*Os ischium, or the ischiatic part of the os innominatum.*”

“It is composed of two branches, an anterior smaller, and a posterior larger. The anterior branch grows broader and thicker gradually, from the place where the descending branch of the os pubis passes into it, and ascending is connected with the posterior branch. Its anterior surface is rough, the posterior smooth; the superior edge sharp, the inferior broad.

The external surface of the posterior branch presents an obtuse crest, transformed into the prominent margin of the acetabulum, and, towards the posterior parts, the tuberosity of the ischium, encrusted with cartilage, beginning by a contracted part, and, gradually spread

* “*Os ischii, sive pars ischiadica ossis coxæ.*”

“E duobus ramis, priori minori, posteriori majori componitur. Prior ramus, ab eo ind loco, quo descendens ossis pubis ramus in eum abit, sensim, latior, crassior evadit, ramoque posteriori adscendendo adjungitur. Prior ejus superficies aspera est, posterior lævis; margo superior acutus, inferior latus.

Rami posterioris externa superficies cristam obtusam, in prominentem acetabuli marginem mutatam, et posteriora versus tuber ischii cartilagine crustatum, initio contracto ortum, sensimque diductum, ovali ambitu terminatum, et ad externa, et posteriora, circumvolutum exhibet. Acetabulo et tuberi ossis ischii sulcus, tendinem musculi obturatoris externi excipiens, interponitur. Post ad constituendam acetabuli posteriorem partem fornicatur, in duas partes abit in *inferiorem minorem*, sive incisuram ischiadicam inferiorem, quæ musculum obturatorem internum excipit, et in superiorem majorem, ellipticam, sive incisuram ischiadicam superiorem, sive potius *iliacam*, minimam partem ab osse ischii, maximam vero, ab osse ilii constitutam; in quâ nervus ischiadicus, arteria et vena ischiadica et glutea ponuntur. Spina prominens, ischiadica vocata, incisuris interponitur.

out, terminated by an oval circuit, and having the edge towards the external and posterior parts turned over. Between the acetabulum and the tuberosity of the ischium, there is a furrow, which receives the tendon of the obturator externus muscle. Afterwards, in order to form the posterior part of the acetabulum, it is arched and passes off into two parts, an *inferior* smaller, or the *inferior ischiatic notch*, which receives the obturator internus muscle; and a *superior larger*, of an elliptical form, or the *superior ischiatic notch*, or rather *iliac notch*, (for the smaller part of it is constituted by the os ischium, but the greater part by the os ilium,) in which the sciatic nerve, the ischiatic and gluteal artery and vein are placed. The prominent spine of the ischium, as it is called, is placed between the two notches."

The anatomical work of BOYER appears to me a model of distinct and accurate description, and, in these qualities, not to be surpassed. In the account of the os innominatum we find the following passage.*

"Below this eminence" (that is, below the posterior, inferior spinous process of the ilium), "we see a considerable notch which makes *a part* of the ischiatic notch." In the description of the os ilium, he says, "the posterior edge presents also two notches, one superior, very small, (between the spinous processes,) and the other inferior, very large, which makes *part* of the ischiatic notch." Again, in speaking of the sacro-sciatic ligaments,† "the *two sacro-sciatic ligaments convert the*

* "Plus bas est une autre éminence, formée par la partie postérieure de la facette qui s'articule avec le sacrum. Cette éminence est médiocrement saillante, arrondie, tranchante, et porte le nom de l'épine postérieure et inférieure de l'os des îles. Au dessous de cette éminence on voit une échancrure considérable, qui fait *partie* de l'échancrure sacro-sciatique."

† "Les deux ligamens sacro-sciatiques convertissent l'échancrure sacro-sciatique en deux trous; un supérieur plus grand et un inférieur plus petit. Le premier est rempli, dans l'état frais, par le muscle pyramidal, par les vaisseaux et le nerf fessier, par le vaisseaux et nerfs sciatiques, et par les vaisseaux et les nerfs honteux. Le second est rempli par le muscle obturateur interne, et par les vaisseaux et le nerf honteux."

ischiatric notch into two holes, a superior larger, and an inferior smaller. The first is filled, in the recent state, by the pyramidalis muscle, by the gluteal vessels and nerve, and by the sciatic and pudic vessels and nerves. The second is filled by the obturator internus muscle, and by the pudic vessels and nerve."

The "Dictionnaire de Médecine," now publishing in Paris, is edited by twenty-six distinguished professional gentlemen, among whom are BECLARD, CHOMEL, ORFILA, PELLETIER, &c. This work must of course speak the language and opinions now received by the profession in France. In their description of the os innominatum they observe, that "behind the spine of the ischium is a deep notch, and another smaller one, forming a smooth groove, separates this spine from the tuberosity; these notches are known by the names of the *great and little ischiatic notches.*"*

To these authorities I shall add that of MECKEL, a name long celebrated among the anatomists of Europe. In a work lately published by the professor of Halle, which has just appeared in Paris, translated into the French language, and is considered a valuable acquisition to the medical profession,† we find the nomenclature proposed by SOEMMERRING, adopted and established; for, in the description of the ilium he thus speaks of the superior notch:

"The inferior edge [of the ilium] is deeply indented: it forms the posterior and superior part of the *iliac notch.*‡

* Une échancrure profonde existe en arrière de l'épine sciatique, et une autre plus petite, formant une coulisse de glissement, sépare cette épine de la tubérosité: ces échancrures sont appelées la *grande* et la *petite échancrures ischiatiques.*

† I am happy to learn that this excellent work is proposed to be given to the American public, in an English translation, by Dr. BRADFORD of Cambridge.

‡ Le bord inférieur est fortement échancré: il forme la partie postérieure et supérieure de l'échancrure *iliaque* (incisura iliaca, s. *iliaca superior.*)

In describing the ischium ; “ Between its tuberosity and the inferior edge of the cotyloid cavity, is found a deep depression on the outside. We perceive also between it and the spinous process, at the internal face and the posterior edge, a notch called *inferior iliac*, or *ischiatric*.”*

The quotations made above must be sufficient to satisfy any anatomist that these authors applied the term ischiatic notch, not, as some have thought, to the space above the letter *F* in Plate I, exclusively, nor to the space below, exclusively, but to both these parts. BOYER considers the whole to be one notch, that is, from *a* to *a*, divided into two parts by the sacro-sciatic ligament ; SOEMMERRING and the editors of the “Dictionnaire” make two notches, which *he* calls superior and inferior, and *they* great and little, ischiatic notches ; and MECKEL gives the name of iliac notch to the whole indentation, that of superior iliac, to the upper notch, and of inferior iliac or ischiatic, to the lower notch. The nomenclature of MECKEL is perhaps the most exact, for the reasons assigned by SOEMMERRING, namely, that the superior notch is formed principally by the ilium, and not principally by the ischium. If the term ischiatic is retained, it must be applied to the notch as a whole, or it cannot apply at all to the upper part, this being placed in a different bone. The impropriety of confining the term ischiatic notch to the upper portion is too obvious to require any remark. If its application were restricted beyond what has been done by these writers, it should be to the lowest part of the notch, which only is really contained in the bone ischium. †

* Entre cette tubérosité et le bord inférieur de la cavité cotyloïde, se trouve une gouttière profonde en dehors. On aperçoit aussi entre elle et l'épine, à la face interne et au bord postérieur, une échancrure appelée *iliaque inférieure* ou *ischiatique* (*incisura iliaca inferior*, s. *ischiatica*.)

† The learned attorney for the defendant alludes, with signs of satisfaction, to expressions made use of by me, in which the idea is conveyed of a dislocation backwards and downwards in the *ischiatric*

Dislocations, or displacements of the thigh bone from its socket, may take place in any part of its circumference. When we consider the form of this socket, of which some notion may be had from Plate I; and also the form of the head of the thigh bone, as it may be seen in Plate II, it will readily be understood, that so far as regards the bones, there is no natural obstruction to a displacement at any part of the circular rim of the acetabulum. This opinion is remarkably confirmed by the fact, that the point where the greatest anatomical obstruction exists to the escape of the bone, is precisely the place where dislocations most frequently occur; that is, at the upper and outer part of the socket. Here the ridge of the acetabulum is more elevated than at any other part; yet it is here that the dislocation on the dorsum of the ilium happens, the dislocation upwards and backwards, a kind of displacement which occurs, according to Sir ASTLEY COOPER, in three out of five instances of luxation of the hip joint. But although the thigh bone may be thrown out in any direction, it cannot rest with equal facility on every point of the os innominatum. The action of the muscles, or movements from external causes, would readily carry it back to its place, were it not hitched by bony inequalities about the circumference of the socket, which serve to engage the displaced head of the bone, and to retain it in four different situations, according to most authors and surgeons. In these places it is confined by the inequalities of the bone, aided by the strain put on muscles extended beyond their ordinary condition, and on the lacerated portion of its ligaments.

notch, as if this notch did not extend below the level of the socket. It is to these expressions I suppose he intended to apply the epithets, "absurd, unaccountable, incredible," and it is this idea he would call "a perfect fallacy," "a most egregious error," "capable of being refuted on the most obvious principles of anatomy." An accurate notion of the anatomy of the part must convince him that these epithets were misapplied.

The four situations, taking them in the order of frequency, are,

1. On the Dorsum of the ilium, as indicated by the circle *dd* in Plate I. This is called upwards and backwards.

2. In the foramen ovale, or forwards and downwards, indicated by circle *D hh*.

3. On the pubes, or upwards and forwards, circle *E gg*.

4. On the ischiatic notch, downwards and backwards, circle *F ff*. Besides these four cardinal dislocations, others have been described. The dislocation directly backwards, or backwards and a little upwards, on the superior part of the ischiatic notch, or what should be called the *iliac* notch. The last is described in Plate I. by that part of the outline included in the circle *ee*. No doubt the head of the thigh bone may be sometimes lodged in places different from any of those just mentioned. Its displacement downward has been described by various authors, ancient and modern. I have myself seen it in a situation in which, although I think the sort of occurrence has been noticed by some author, I could with difficulty have conceived it to remain, had I not witnessed it; that is, upwards and outwards, just on the edge of the socket. From such a situation it might have been supposed, that the slightest motion would have thrown it into its place. Yet there it remained, and still, I presume, remains, for, when I saw it, too long a period had elapsed after the injury, to think of an attempt at reduction.

The four dislocations above mentioned, are represented in the annexed Plates.

Plate II. A lateral view of the os innominatum, with the upper extremity of the femur, in the situation in which it is, when dislocated backwards, or nearly so, the head of the bone being in the upper part of the ischiatic notch, or properly speaking, in the *iliac* notch.

Plate III. The same view of the os innominatum as in Plate II: *a*, a dotted outline of the upper extremity of the

femur, showing its position in a dislocation backwards and upwards upon the *Dorsum ilii* ; *b*, a representation of the upper extremity of the femur, in its position, as dislocated backwards and *downwards* to the lower part of the ischiatic notch.

Plate IV. A front view of the left side of the pelvis ; representing also the position of the femur, when the head of the bone is dislocated forwards and upwards upon the os pubis.

Plate V. A view of the pelvis, as in Plate IV, and of the femur as in a dislocation forwards and downwards, with the head of the bone lodged in the foramen ovale.

While some authors have increased the species of this dislocation beyond the number commonly admitted ; others, and these of no small note, appear disposed to diminish them, or are unwilling to admit the existence of all these species.

MR. WILLIAM HEY of Leeds, excelled by few men of his time as a practical surgeon and writer, and what is more to his credit, by few in his general character, seems to admit only two kinds of dislocation : “ A dislocation of the os femoris at the hip,” says he, “ may happen two ways, forwards and downwards, or backwards and upwards.” “ Seven instances of the latter, and three of the former are all that have occurred in my practice.” “ Thirty years had nearly elapsed, after the opening of the General Infirmary of Leeds, before any patient was brought to it with a dislocation forwards and downwards. Nor had I, during a period of thirty-eight years, seen that accident in private practice.”

MR. CHARLES BELL, in his system of operative surgery, describes two kinds of dislocation only, namely, upwards and downwards.

MR. BENJAMIN BELL, author of the System of Surgery, thus expresses himself on this subject : “ It is said by authors, that the head of the femur may be luxated in various directions, namely, upwards and backwards, upwards and forwards, downwards and backwards, down-

wards and forwards, and, I may add, directly downwards; but I believe few practitioners have met with an instance of the first and third." He further says, that all practitioners admit the bone to be most frequently dislocated into the foramen ovale. "In the dislocation downwards, the leg will be longer than the other, and the trochanter lower, but the knee and toes will retain nearly their natural situation." It is remarkable that of the two species of dislocation, which Mr. BELL seems to doubt, one has been proved by the observation of other surgeons to be more common than all the rest taken together.

The difference of opinions among surgeons, eminent for their knowledge and experience, requires some explanation. This will be found, I apprehend, in the fact, that surgical practitioners of great experience are naturally inclined to the belief, that they must themselves have witnessed every important variety of accident and disease, and that what *they* have not seen does not exist. What other explanation can we put on the assertion of Mr. BELL, that the dislocation on the Dorsum ilii has rarely been witnessed, and that the dislocation in the foramen ovale is the most common species? Or how else can we understand that Mr. SHARP, the greatest English surgeon of his time, and highly esteemed at the present day, should have doubted the existence of any hip dislocation? Mr. BENJAMIN BELL did the same in the earlier part of his practice, till experience led him to a different conclusion. Such errors will teach us to view, with a reasonable degree of caution, the round and positive assertions of practitioners, who would put down established opinions by their own solitary experience; and they also show us the necessity of exercising our own judgments in a fair comparison and estimate of opposing facts, as observed by different authors. "Desault," says M. RICHERAND in his late work, "was too easily persuaded, that the surgeon of the greatest hospital in the capital must necessarily be the greatest surgeon in the world;

supported in this idea by his flatterers, he exaggerated to himself the importance of his labours, and renouncing the attempt to enlighten himself by the knowledge of his brethren, he founded his reputation on titles, of which every day diminished the value." Such must be the fate of every surgeon, who, from too great confidence in himself, undervalues the opinion of his professional brethren, and considers the whole circle of surgical knowledge to be comprised within the sphere of his own observation. How absurd would it be thought for a surgeon in Boston, practising in the midst of a population of 80,000 persons, to pretend to have seen every variety of accident or disease, which has occurred to the practitioners in the state, comprising half a million. He might have seen more than any three surgeons, or any ten, but that he should have observed all the variety of cases which has come within the cognizance of a thousand practitioners, would be thought a pretension too comprehensive to be allowed. So it would be equally inadmissible for a great surgeon in Paris, to pretend to have seen all which could happen throughout the world.

We shall now confine our inquiry more particularly to the kind of dislocation supposed to have existed in the case under consideration;—that of Mr. CHARLES LOWELL of Lubec. This is already stated to have been taken by me to be a dislocation downwards and backwards, in the ischiatic notch, such as is indicated in Plate III, and the situation of which has been shown in Plate I., by the circle *ff*. The existence of this species of dislocation has been doubted, as we have just seen, by Mr. BENJAMIN BELL; but his opinion cannot have much weight in the case, since he equally doubts the existence of the dislocation upwards and backwards, well known to be the most frequent kind of this accident.

Besides him, we find three other surgeons of distinguished reputation, who have either questioned or directly denied the dislocation backwards and downwards. More than a century ago, JOHN LEWIS PETIT, a dis-

tinguished surgeon in Paris, declared that he had never seen it, and, that he even believed it to be impossible. He admits, however, that it may exist when the muscles are paralyzed, and gives instructions how to effect its reduction. This doctrine of PETIT does not appear to have been generally received; for the next authority to be found in its support, after the lapse of a century, is that of BOYER, an excellent surgeon, now living in Paris. In his treatise on surgical diseases, originally printed in French, translated and published in this country by Dr. STEVENS of New York, he says: "We do not think the femur can ever be luxated downwards and backwards, but it may be carried in that direction after a luxation upwards and outwards. That is to say, the head of the femur, thrown in the first instance on the external iliac fossa, may, if the thigh be afterwards adducted by any cause, slip down before the upward part of the ischiatic notch, but it can never reach the junction of the ilium and ischium." Whence it appears not only that BOYER denies the primary dislocation backwards and downwards, but also the primary dislocation backwards; while the latter is admitted by high authorities, who question the former. In truth, of the few surgeons who deny the dislocation backwards and downwards, there is no other that doubts the dislocation backwards. The whole surgical world seem to be against BOYER on this subject; and his authority in the case is consequently much diminished, especially as he falls into the error we have just now had occasion to notice, that of trusting too confidently to his own experience; for BOYER gives us no reason why the dislocation backwards, or the dislocation downwards and backwards, should either of them be impossible; he does not point out any physical obstacle to such an occurrence; he does not inform us that the socket is more elevated at the lower part than at the upper, or that any other condition of the bones is such as to present an insurmountable obstruction in this direction. We know, on the contrary, that such ob-

structions do not exist, and that the resistance to the exit of the bone, in an inferior, posterior direction, is less than in that which is the most frequent, the superior and posterior.

In the trial of this cause, the opinion advanced by me is opposed by the attorney for the defendant and his coadjutors ; it is worthy of remark, however, that in his support he adduces neither of the authorities mentioned above, but only that of Sir ASTLEY COOPER in his treatise on dislocations.*

* An attempt is made to bring forth the opinion of this distinguished surgeon, as uttered in the third edition of his works ; to place it in the light of a discovery so recent as not to have found its way to the physicians of Boston, though in some wonderful manner revealed to the attorney and his coadjutors ; and to represent this *revelation*, for so I think he calls it, as a refutation of the "absurd," "unaccountable," "incredible," error into which I had so unhappily fallen. What are we to think of such a proceeding ? Was the gentleman who professes to have so perfect a knowledge of the subject, as to persuade himself he could put down and trample on the opinion of physicians, was he ignorant of such common works as BENJAMIN BELL, known to every student, and BOYER on the Bones, which has passed through two or three American editions ? Or was this pretended discovery a manœuvre, thought to be well calculated to dazzle and blind the court and jury ? The most charitable course will be to give the learned counsellor full credit for ignorance in this case ; for I am not willing to believe an imposition so gross could be attempted.

The discovery imputed by these gentlemen to Sir ASTLEY, is by him not claimed nor considered as a discovery ; and the opposition in which it is placed to what I had advanced, exists more in the glowing language of the attorney than it does in fact. Whether there be any difference between the opinion found in Sir ASTLEY COOPER, and that which had been given in my deposition, and, if any, how great the difference is, will appear on a more exact examination of the statement of this author. As the name of Sir ASTLEY COOPER has been so often repeated in these remarks, and as these gentlemen have attempted to avail themselves of his authority to overthrow my opinion, it may be proper in this place to state how far we are willing to consider him as a general guide in matters of surgical science.

Sir ASTLEY COOPER was a disciple of Mr. JOHN HUNTER, and an immediate pupil of Mr. HENRY CLINE, of St. Thomas's Hospital, the latter a gentleman, I believe still living, who was distinguished, as a lecturer on anatomy, for his admirable perspicuity, and as a practi-

If it were necessary for the safety of my reputation to oppose doctrines emanating from such high authority, my task would be hopeless. Happily this is not the case; the opposition of opinion is more in appearance than reality. The attorney and his friends have arrayed Sir ASTLEY COOPER in a hostile garb of their own contrivance. Strip off this foreign dress, and it will be seen there is no material difference between the opinions expressed in his work, and those which appear in my deposition. Sir ASTLEY remarks that he had never

cal surgeon, for his calmness and steadiness in operation. By his own talents and industry Sir ASTLEY elevated himself to the place of colleague with Mr. CLINE, as a lecturer on anatomy, and he opened a separate course of surgical lectures given by himself only. On the resignation of Mr. WILLIAM COOPER, surgeon of Guy's Hospital, a gentleman whose name I cannot pass over without expressing my respect for his excellence, Sir ASTLEY was chosen by the governors of Guy's Hospital a surgeon of this noble charity; continued to be so more than twenty years, and has but lately relinquished this post. When he was elected to Guy's Hospital, I was engaged in the service of the institution under Mr. WILLIAM COOPER, and had the honour of being the first to receive the commands of Sir ASTLEY. From that time to the present I have been more or less in the habit of communicating with him, and have experienced an uninterrupted flow of kindness for myself, and of hospitality towards my countrymen, whom I have introduced to his notice. Nor have I been wanting in the respect due to so distinguished an instructor and friend; for probably I was the first to make his name known, and to spread abroad his reputation on this side of the Atlantic. And to those who have attended my lectures, I can appeal in support of the assertion, that I have quoted no other name more frequently and none with more respect. In truth, Sir ASTLEY COOPER is entitled to all the respect that has been paid to him. He is not a mere surgeon, but a philosopher of the school of Bacon, a careful observer of nature, and a reasoner by induction from facts. His works are models of practical doctrine, without the least superfluous theory, or unnecessary discussion, and I have often thought and have expressed to him, that surgeons are much indebted to him, for giving to the public the fruits of his experience in the more common and frequent cases of surgery as well as in those which are rare. He is a decided friend to the American nation. If to these points of character we add that he is eloquent as a lecturer, and admirable as an operator; that his personal appearance is noble and imposing, few men would seem likely to inspire, and to have greater claims to general respect than Sir ASTLEY COOPER.

in his long experience seen the dislocation backwards and downwards, and thinks it must be an unfrequent accident ; but expressly admits its *possibility*. In this I should perfectly agree with him. He asserts that a dislocation in the ischiatic notch, or that which, according to the continental anatomists, is the *upper part* of the ischiatic notch, cannot be below the socket of the hip. In this, also, I must entirely coincide with him. In one place indeed he says, "It is to be remembered there is no such accident as a dislocation downwards and backwards," but this must be taken not in an insulated sense. To get the true meaning of the writer we must have in view all he says in relation to the topic. Now we find in the first part of his treatise (I speak of the third edition, that quoted by the learned attorney in his speech) the following passage : "A dislocation backwards and downwards has been described by some surgeons who have had opportunities for observation ; but I have to remark that no dislocation of that description has occurred in St. Thomas', or Guy's Hospital for the last thirty years, or in my private practice ; and I doubt its existence, though I *would not deny the possibility* of its occurrence, but am disposed to believe some mistake has arisen on the subject." In a subsequent page the same remark is repeated, with the following additions and explanations. "If such a case does ever occur it must be extremely rare. I cannot help thinking that some anatomical error must have given rise to this opinion, as in the dislocation downwards and backwards the head of the bone is described as being received still into the ischiatic notch ; but this notch is in the natural position of the pelvis above the level of the line drawn through the middle of the acetabulum ; and thence it is that the leg is shorter, not longer, where the bone is dislocated into the ischiatic notch."

From these quotations it appears, that Sir ASTLEY COOPER, not having witnessed the dislocation backwards and downwards in his long course of experience, was naturally led to doubt its existence ; that

he expressly disclaims a denial of its possibility, and admits that it had been described by persons of observation, though he conceives its occurrence to be rare ; and that he is disposed to think the supposition of such an accident may have arisen from a mistake as to the anatomy of the part.

Now it is obvious that the different representations made of this case by authors, have arisen from a different application of terms. Nothing can be more certain, than that, in ascribing the error to an anatomical mistake, and in showing this mistake to have consisted in the notion that the ischiatic notch was lower than the hip socket, Sir ASTLEY COOPER alluded to what we call the *upper part* of the ischiatic notch ; what BOYER and the French anatomists generally have described to be the upper part, what SOEMMERRING names the superior ischiatic notch, or, if rightly denominated, the *iliac* notch. That which Sir ASTLEY calls the ischiatic notch, is really above the socket ; but what the continental anatomists so name, extends both above and below. A dislocation in the upper part of it is above the socket, and the limb is shortened ; a dislocation in the lower part, or on the surrounding bone, is below the socket, and in such the limb would be lengthened.

That such is the true explanation of Sir ASTLEY'S opinion of the subject, is, I have already said, obvious ; for no one will venture to attribute to Sir ASTLEY COOPER, or to any other anatomist, the assertion that the lower part of this notch, where the obturator internus muscle is situated, is above the level of the hip socket. It is in fact so much below it, that a dislocation in which the head of the bone was placed there, or thereabouts, would present a limb lengthened from two to three inches.

The explanation of the anatomical error being rightly understood, and also the declaration of Sir ASTLEY COOPER, that he would not deny the possibility of this accident, it must follow, that the weight of his authority against its existence is greatly diminished, if not al-

together removed ; for we have no remaining objection on his part, but the fact, that he had not witnessed the very case ; but Sir A. COOPER is too much of a philosopher to have made this the principal ground for denying its occurrence, as PETIT very unceremoniously does. The latter tells us roundly, he has never seen such an event, and therefore it is impossible. But on what ground, let me ask, could PETIT, or any one else, assert such an occurrence to be impossible ? Where are the barriers to it, and what are they ? Do they exist in the bones ? I have already shown the reverse. Are they formed by ligaments ? these are weaker below than above. Or in the muscles ? they are not stronger in this than in any other direction. Where then is the insurmountable obstacle that renders this displacement downwards and backwards an impossible occurrence ?*

* No doubt it will excite surprise in the minds of some persons, that in the vast extent of their practice, neither Sir A. COOPER nor BOYER has met with this dislocation, and we may be asked why they have not ? the reason is plain ; it lies in the rareness of its occurrence. We have no right to demand that one practitioner should have seen every accident and disease ; life is too short for an experience so extensive ; for while we are in the full career of observation, and are gratifying ourselves with the expectation that we are soon to see all there is to be seen, and know all there is to be known, death comes upon us and cuts all our experience short, and we are able to leave but a small part of it behind us. A multitude of instances might be adduced in illustration of this statement ; I shall quote only one, that of dislocation of the vertebræ of the neck, without destruction of life. Sir ASTLEY COOPER informs us that he has seen no such accident ; though he does not wish to deny the *possibility* of its occurrence. Yet an instance is recorded by BOYER, who appears to have been a witness of it himself, and who speaks of this dislocation as an occurrence not unfrequent. "A lawyer writing at his desk, heard the door behind him open ; he quickly turned round his head to see who was coming in, but could not bring it back to its natural position. Many surgeons of Paris have seen this patient ; his head was turned to the right, and slightly inclined to the shoulder of the same side." Sir ASTLEY's words on the subject are the following : "It has been generally said by surgeons, that dislocations of the spinal column frequently occur ; but if luxation of the spine ever does happen, it is an injury which is extremely rare ; as in the numerous instances which I have seen of violence done to the spine, I have nev-

We may be asked, why the dislocation spoken of is so very rare, as not to have been seen even by these great practitioners? In reply to this question I would premise, that I do not consider myself bound to answer objections to a fact; it is enough to show its existence. However, I am ready to give all the satisfaction I am able, and therefore shall assign as the reason for the infrequency of this kind of dislocation, the following considerations and facts. The direction, in which the thigh bone is thrown out of its place, must depend principally on the direction in which the displacing power is applied. In order to dislocate the thigh upwards and backwards on the ilium, or above and without, a force must be applied from below and within. Now in injuries accompanied with dislocation of the thigh, the force is most frequently applied to the knee on its outside and lower part, and the blow is received on the outside of the knee in consequence of the natural inclination of the thigh bone from without inwards, as it passes from the hip to the knee. If, for instance, a man falling from a scaffolding, strike the knee, it will usually be on its outer part. If there should be a consequent dislocation, the thigh bone will

er witnessed a separation of one vertebra from another, without fracture of the articular processes; or if those processes remain unbroken, without fracture through the bones of the vertebræ; still I would not be understood to deny the possibility of luxation of the cervical vertebræ." An instance of partial luxation of the cervical vertebræ successfully reduced, has, I have been told, recently happened in this country, but the circumstances have not been represented to me so exactly as to authorize me at this time to cite it. The repetition of quotations is not however necessary, I suppose, to support the general assertion made above; since few will deny that accidents have occurred, and do frequently occur which the most practised surgeons may not have encountered. It is on the subject of injuries of the spine, that Sir A. COOPER has been recently attacked with great violence by a surgeon and author of high standing in London. I have alluded to this attack for the purpose of showing that the strongest claims on the good will of the profession and the public, have not exempted even Sir ASTLEY COOPER from sarcasm and reproach.

be pushed upwards and outwards on the ilium ; and this is the reason why this dislocation is more common than any of the others, notwithstanding nature has in precisely this direction placed the strongest guard of bone, ligament, and muscle ; no doubt because it is the part most exposed to this accident. While this is the most common mode of the application of force to the knee, there may be many others which will of consequence be calculated to give the bone various directions. If the force be applied below the knee and on its fore part, then, the thigh bone being thrown upwards till it tears the ligaments and muscles, its head will issue at the lower part of the ligament, and a slight inclination of the knee inwards will throw it in a direction to rest on or near the outer part of the socket, and in this way produce the dislocation backwards and downwards. It has also seemed to me probable, in the case of an individual falling with his horse, the foot being engaged under the horse, and the subject coming down on the side of the sacrum and ischium, that the weight of the animal received on the inside of the thigh, under such circumstances, would force the head of the bone outwards and downwards. The cause of the infrequency of the dislocation downwards and backwards, I therefore suppose to be the infrequency of the application of a sufficient power in the direction required to produce it.

Having thus assigned the reasons which might have influenced the opinions of PETIT, BOYER, and Sir ASTLEY COOPER ; having removed in part, if not wholly, the objections which might have operated in the minds of the two last named surgeons ; and having shown that there is not any physical obstruction to the occurrence of the accident in question ; I might add that in this state of facts, the well authenticated and positive evidence of a single instance of its occurrence would be sufficient to satisfy an impartial mind. This could indeed be properly said of any such case, described by a

perfectly disinterested practitioner ; but, as I am now situated, such a fact would not, of itself, present sufficient grounds for confidence. Instead, therefore, of bringing forward my own experience in this stage of the argument, I shall beg leave to look into respectable authors for the purpose of ascertaining, whether the opinion formed by me is an insulated one, or whether it is supported by good authorities.

The authorities which I shall prefer in the present, as in a former case, are those which are considered most popular, and therefore best fitted to represent the general sentiment. The first which presents itself, in this light, is the article on the subject of dislocation in the Cyclopædia of REES.*

Of dislocations of the hip, this author says, “ These dislocations may take place upwards and outwards, on the external surface of the os ilium ; upwards and forwards on the body of the os pubis ; downwards and inwards on the foramen ovale ; and *downwards and outwards on the os ischium.*”

“ Luxation of the femur downwards and backwards, may, like that of the humerus inwards and forwards, be primary or secondary : it is primary when in consequence of some effort, the head of the femur is forced from the acetabulum, at its *inferior* and *posterior* parts, and is placed at the junction of the *ilium* and *ischium* ; †

* The composition or preparation of the surgical articles in this work has been attributed to Mr. WILLIAM LAWRENCE of St. Bartholomew's Hospital, a distinguished author, lecturer, and surgical practitioner in London. It must be noticed, that the titles of the different species of dislocation are a little varied by different authors ; though not so much but that a moderate degree of attention will show their agreement with each other in meaning.

† The point of junction of the ilium and ischium might be thought too high a situation, when the head of the bone is there, to present a luxation downwards. To judge rightly of this, it is proper to consider that the upper part of the ischiatic notch is but little above the acetabulum, and that, when the head of the thigh bone is there, the limb is very little, sometimes not at all, shortened ; that when the head is lodged at the junction of the ilium and ischium, it will be

it is secondary when it succeeds to the luxation upwards and outwards, the head of the femur, which was placed at first in the external iliac fossa, sliding downwards and backwards; its passage in this direction being favoured by bending the thigh on the pelvis.

“In these two cases, the head of the femur rests against that part of the ossa innominata *where the os ilium and ischium join*; the muscles which cover the posterior parts of the articulation, such as the Piriformis, Gemini, Obturatores, and Quadratus, are raised up and stretched; the Psoas magnus, and Iliacus internus are in a state of great tension, and this explains the turning of the limb *outward*. When this luxation is primary, the extremity is lengthened; a hard tumour is felt at the posterior and superior part of the thigh; the great trochanter, by descending, is removed further from the spine of the os ilium, and the knee and sole of the foot are turned *outward*; but if it be secondary, the thigh is much bent on the pelvis, the knee and sole of the foot are turned *inwards*, because the primary luxation has been upwards and outwards. The secondary luxation in this direction is much more frequent than the primary.”

Omit what relates to the secondary luxation, and you have in this description, as nearly as may be, the phenomena in the case of Mr. CHARLES LOWELL, that is, of a dislocation “backwards and downwards, in or about the ischiatic notch;” for if I had drawn up a statement of the symptoms of the case, it could scarcely have applied with more accuracy than this; especially the account of the anatomy of the muscles in this accident, which, independently of this author, I had examined and verified in every particular. Will any one believe that imagination could have formed

considerably lower, and the limb of course decidedly elongated; and when on the lower part of the ischiatic notch and spinous process of the ischium, it will be much elongated, that is, to about the same degree as in dislocation forwards and downwards, which is well known to be frequently equal to nearly three inches.

these symptoms in my mind, years before I had read the description quoted above ?

In other histories of the case, we find some varieties of concomitant symptoms ; but they are not greater than might be justly expected, on considering the different *degrees* of *laceration* of the capsular ligament of the joint, especially when the anatomy of all the parts concerned in this dislocation is rightly understood.

The Edinburgh Practice of Surgery contains the following account of the matter. “ From the great strength of the hip joint, it was formerly believed, that the head of the thigh bone was never luxated by external violence. But it is now known that it happens by no means unfrequently.”

Having described three other kinds of dislocation, the dislocation backwards and downwards is thus spoken of : “ When the ball slips backwards and downwards, the leg is lengthened, the toes turned inwards, and the great trochanter is lower than that of the other limb. If the ball slips directly downwards, the toes keep nearly their natural situation.” This last dislocation is apt to be converted into that backwards and downwards, for when the head of the os femoris slips out of its socket at the lowest part, there being no very convenient lodgment for it directly under the socket, it glides backwards, and in this way the dislocation backwards and downwards may sometimes be produced.

Among the more distinguished French authorities on this subject, we find the following. First, the Encyclopédie Méthodique, a work produced by the united science of the French. “ We may,” say they, “ distinguish different luxations, according to the place the head of the bone occupies, out of its cavity ; thence the different names of luxations ; upwards and outwards, upwards and inwards, *downwards* and *outwards*, downwards and inwards.”

RICHERAND, author of the system of surgery called Nosographie Chirurgicale, also of the system of Physiology, and of a surgical work just published, which has

excited great attention in France and England,* holds the language of REES's Cyclopædia, or the account given by the one is a translation from the other. This, as we have seen, agrees more nearly with our case than any other history of this accident, and we must view in it the united opinions of RICHERAND, and of the editor of the surgical part of the Cyclopædia. I quote a few lines only to show this agreement. "The femur may be luxated from its articulation with the innominatum, to be carried upwards and outwards, on the external face of the os ilium; upwards and inwards, on the body of the pubes; downwards and forwards, in the obturator foramen; *downwards* and *backwards* on the os ischium."† He distinctly states in regard to the latter, that the limb is lengthened and turned outwards.

According to LEVEILLE, author of the systematic work called "New Surgical Doctrine," "the femur may be displaced outwards and inwards, forwards and backwards." "The luxation backwards, in *posteriorem partem*, Hippocrates, Celsus; *downwards* and *outwards*, impossible, according to Petit; *behind* and *below*, according to Bertrandi; *posteriorem et inferiorem*, according to Callisen; posterior and inferior, Monteggia; is indicated by the *flexion on the pelvis* of the thigh, when in a state of adduction; by the *elongation* of the limb, the knee, and point of the foot being directed in-

* This new work of RICHERAND's is written on the plan of SHARP's Critical Inquiry. It contains the most liberal and impartial view of French surgery, which has ever appeared. The criticisms on the writings and improvements of the French, English, and German surgeons, are some of them excessively severe, especially those on DESAULT, and DUPUYTREN, the great surgeon of the Hôtel Dieu; in some of which I should venture to disagree with this writer. However, it must be allowed that he shows great learning and independence, and it is probable his publication will produce considerable improvement in French surgery.

† Le femur peut se luxer dans son articulation avec l'os innominé, pour se porter en haut et en dehors, sur la face interne des os des fesses, en haut et en dedans sur le corps du pubis, en bas et en avant sur le trou obturator, *en bas et en arrière sur l'os ischien*.

wards ; by the great trochanter being lower in front, as well as the bend of the hip, flat above, broader below.”*
 “ The last variety of luxation, is with the capsule lacerated behind, with the head of the bone applied on the *tuberosity of the ischium*, where it is retained by the *tension of the superior part of the capsule*, which is not torn, and by the contraction of the muscles attached to the trochanter.”

Let it be noticed, that the above passage gives the authorities of HIPPOCRATES, among the Greeks ; CELSUS among the Latins ; BERTRANDI among the Italians ; CALLISEN among the Swedes ; and MONTEGGIA among the Italians. All in favour of the dislocation backwards, and most in support of that backwards and downwards, and each of them, at least of the modern authors, at the head of the profession in their respective countries ; CALLISEN and BERTRANDI are, it is well known, surgeons and authors of the highest rank for learning and accuracy ; they are, particularly the former, not to be surpassed, for their knowledge and correctness. They distinctly maintain the doctrine I have endeavoured to illustrate.

The only additional authority I shall think necessary to cite from the French, is that of DELPECH, the learned Professor of Surgery in the University of Montpellier. His remarks are very comprehensive, and exhibit great observation and a profound knowledge of the subject :

* It will be sufficiently obvious that all these authorities are not adduced because their description of symptoms accords exactly with those of the case in discussion. The principal object of them is to establish the disputed fact of a dislocation backwards and downwards. The symptoms are described with some variation by different authors. They all agree that the limb is elongated. The direction of the foot is, according to some, outwards, to others, inwards, and again, according to others, strait forwards. These varieties, as I have explained, are produced by the different degrees of laceration of the capsule. When the head of the os femoris is at the lower part of the ischiatic notch and spinous process of the ischium, the foot will, I apprehend, rather incline to turn outwards than inwards, in most instances.

“The exact analysis of facts, demonstrates that we must refer every luxation of the femur, as to the direction of the displacement, to four different species. In the first, the head of the bone passes towards the external iliac fossa ; in the second, it is placed on the horizontal branch of the os pubis ; in the third, it rests on the foramen ovale ; in the fourth, the femur is supported between the cotyloid cavity and the great ischiatic notch. It is probable that the accidental relations established by the luxation, do not always take place exactly between the same points ; observation demonstrates on the contrary, that there are *some variations* in these particulars ; but we may be assured from facts, that the articular capsule is always ruptured towards one of the points indicated.

“We have given to each of these species names taken from the position of the displaced bone : thus in the order in which we have enumerated them, the first is called *posterior superior* ; the fourth *posterior inferior* ; the second anterior superior ; and the third anterior inferior. It would be more simple to call them superior, inferior, anterior, posterior.”*

He then proceeds to show that the respective frequency of these four species depends not so much on the anatomical structure, as on the direction of the force applied ; for the socket is most elevated at its upper part, and yet dislocations are most frequent in this direction. The luxation on the ilium upwards, is, he thinks, the most frequent ; next, downwards and forwards ; third, upwards and forwards ; and in regard to the last species he says : “As to the displacement, by means of which the femur is carried *near to the ischiatic notch* ; it has been observed so seldom, that *respectable physicians have even denied its possibility*. It is however *incontestible* that it has occurred ; but it is the most rare of all. Some have attributed this last kind of luxation to a secondary displacement, which might succeed that,

The last is the nomenclature adopted by Sir A. COOPER.

in which the head is lodged in the *iliac fossa*; but there is nothing to prove the exactness of this assertion.

“Some writers have thought that certain luxations of the thigh might change their direction, by the effect of a consecutive displacement; it has been thought, for example, that the luxation backwards and downwards never took place immediately, but that it might be the remote result of that upwards and outwards, by means of a subsequent flexion of the thigh. But in the first place, the immediate luxation *backwards and downwards can no longer be a subject of dispute in the present state of science*; in the second place, observation has nowise proved this transformation from one luxation to the other; finally, the state of the muscles in the first species seems to render the secondary displacement, of which we speak, a thing impossible.”*

These quotations will be closed with two authorities, published in our own country; one contained in the surgical system of the late Dr. DORSEY, and adopted by him from the French; the other, from a work recently translated and published by Dr. GODMAN.

“The dislocation of the hip may take place,” says Dr. DORSEY, “upwards and backwards,” (or upwards and outwards) “on the *dorsum ilii*; secondly, upwards and forwards, on the *os pubis*; thirdly, downwards and inwards, into the *foramen thyroideum*; fourthly, downwards and *backwards* on the *os ischium*.”

The name of LISFRANC, and his improvements in surgery, have lately excited attention in Europe and this country. Many of these improvements are indeed merely changes, but others exhibit great ingenuity, and give him a fair title to the respect of the profession. A number of his operations I have practised at the Massachusetts General Hospital, with much satisfaction to myself, and I trust with benefit to my patients. An account of his practice has been published in Europe

* *Précis Elémentaire des Maladies Réputées Chirurgicales*; Par J. DELPECH. Paris, 1816. pp. 107, 8, 9, and 17.

by Dr. COSTAR, which that ingenious naturalist, of Philadelphia, Dr. J. R. GODMAN, has just given to this country, with some notes of his own. The work of LISFRANC must be considered as the latest statement of surgical practice and opinions, having been published since Sir ASTLEY COOPER'S third edition. It contains the following account of the different species of dislocation of the hip joint.

“*Luxations of the Femur.*—This luxation may occur in four different directions: 1st, upwards and outwards; 2d, upwards and forwards; 3d, downwards and inwards; 4th, *downwards and backwards.*”

“John Lewis Petit published his opinion on this subject in France one hundred years ago, Boyer about fifteen or twenty years, and Sir Astley Cooper in England, about ten. Yet, notwithstanding these remarkable exceptions to the public voice, the general opinion evidently remains unchanged, and, as the distinguished professor of Montpellier remarks, ‘the *immediate luxation downwards and backwards can no longer be a subject of dispute in the present state of science.*’”

Such are the authorities in support of the existence of the kind of dislocation I had presumed to exist in the case of Mr. LOWELL. If my presumption in this instance be charged with the epithets “absurd,” “unaccountable,” or “incredible,” it will be seen that I must have the honour of participating in these charges with a large part of surgical authors.*

If, however, there be no absurdity in believing the possibility of this accident, I may be allowed to state the special reasons for adopting such an opinion in this instance; to support this opinion by particular facts, which have come within my own cognizance and that

* I do not wish to be considered, in thus dilating on this topic, to be very anxious to convince every one of the species of luxation. The difficulty of doing so is, I am sensible, very considerable. What seemed principally desirable was to establish the *existence* of a dislocation, and to assign a sufficient number of facts and authorities to show there was no “absurdity” in my opinion of the species.

of other practitioners ; and, further, I may be permitted to obviate some difficulties which have been suggested, and reply to some remarks which have been made on my opinion.

No one will suppose that I examined all the authorities introduced, at the time the case of the plaintiff was submitted to my investigation. His case appeared to me a difficult one indeed, at first view, but I was not wholly without knowledge of the opinions of authors concerning it, and therefore, after one inspection of the patient, thought it sufficient to refer to the treatise of Sir ASTLEY COOPER, a copy given me by the distinguished author, and which I had annually referred to, quoted, and sometimes exhibited in my surgical lectures, explaining by its engravings the distinctions between these dislocations. The work of Sir ASTLEY did not afford support to the opinion of the case, which on the whole seemed to me most tenable ; neither did it, to my apprehension, declare such a case impossible, and I had authorities on the other side ; and, what was of more weight, the evidence of my own senses. True it was, that the phenomena much resembled those of another, and more common dislocation ; that, namely, which happens downwards and forwards into the foramen ovale. In this state of doubt, I looked for the sign, which must in every case be considered pathognomic, or truly characteristic of the nature of the accident ; that is, the situation of the head of the displaced bone. If I could find this, whatever might be the other appearances, the species of the dislocation would be satisfactorily made out. Let us suppose, as a parallel example, a dislocation of the shoulder, the first aspect of which might lead the surgeon to the belief of a luxation in the arm-pit ; but that on passing the hand over the shoulder, the head of the bone should be felt on the scapula. Would his opinion halt after he had made this discovery ? The situation of the head of the bone is an unfailing indication of the species of dislocation. I considered it so, my opinion was formed

thereon, and subsequent events served to corroborate it; for when I examined the patient, while under the action of the pullies, I had the perception of its *motion*, and pointed it out to those who stood around me. The authority of books should not, I think, be opposed to such evidence.*

The Hon. Judge informs us, however, that "in this dislocation, the head of the thigh bone is described as being buried so deep, that it cannot be felt distinctly except in very thin persons."† He did not, perhaps, recollect, that Sir ASTLEY COOPER was speaking of a case entirely different from Mr. LOWELL's, when he said, that "the head of the bone could be discovered

* But is it not possible, that I might have been deceived? Undoubtedly. The evidence of the senses is sometimes fallacious, and what seemed to me to be the femur, might have been something different. The Hon. Judge expresses his conviction that this was the case; and the learned attorney is perfectly certain; he "knows" it was not the head of the os femoris. It might have been a wen, an exostosis, a hernia, a piece of the socket, or some non-descript tumour. These are possibilities, I admit, and I must admit that my senses might have deceived me in the whole of this business. But as nature has bestowed no other medium of communication with external objects, I must continue to trust the evidence of these senses, weak and erring as they may be.

† "Now the plaintiff," he adds, "has been before you, and you will judge, whether he is to be considered *a very thin person*." I must ask, whether it was altogether just and fair to call on the jury to take the appearance of the plaintiff nearly three years after his accident, as a specimen of what it was, when he had just issued from his confinement, and was hobbling with difficulty on crutches. The fact is, that his appearance was essentially altered in the interval. He had added most materially to his bulk; and the prominences of the bones were, at the time of the trial, well covered with adipose substance. He then indeed exhibited the aspect of full health and vigor, and bore none of the phenomena, adapted to excite the compassion of the court and jury. When I saw him, the case was different. His appearance was not sickly, neither was he charged with a superabundance of fat. He exhibited muscle and bone in such distinctness, that all parts, naturally prominent, might be made out by a careful observer. I object, therefore, to the presentation of Mr. CHARLES LOWELL, in the month of June 1824, as a specimen of what he was in 1821.

only in very thin persons.” Sir ASTLEY was alluding to dislocations with a *shortened* limb; whereas in this the limb was *lengthened*. Sir ASTLEY alluded to those in which the limb is turned in; in this it was not turned in. Sir ASTLEY referred to cases in which the head of the bone was above the socket; in this it was below it. In fine, Sir ASTLEY described the luxation in which the head of the os femoris is imbedded in that deep hole at the upper part of the notch, while in this, it was from one to two inches lower, on the ischium, or the inferior part of the ischiatic notch. We, in fact, spoke of things quite different, and although it were true, that in no case could the bone be felt in the upper ischiatic or *iliac* notch, it would not in the slightest degree go to prove that it might not be so in the lower and superficial part of the notch, or on the adjoining os ischium. It is found in the latter case at the upper part of the thigh. There it is described as being sensible to the touch by RICHERAND, and there it was that I perceived it in the case of Mr. CHARLES LOWELL.

Another exception must be taken to the opinion expressed so forcibly by the Hon. Judge.* He appears evidently to have examined the book of Sir ASTLEY COOPER, from his having made the above mentioned reference to it, and moreover states, that, “Page 79” in that book (intending page 68,) “gives an example of a genuine dislocation into the ischiatic notch, in the case of a young man admitted into Guy’s Hospital, under the care of Mr. Lucas.” We must suppose, therefore, that he had looked at page 68, and read the account of the case.

* In thus speaking of a judgment emanating from so high an authority, I wish to be considered as intending to do it with all the respect consisting with the developement of truth. The person and character of the honourable gentleman who sat on the bench, and who has done me the honour of using my name, are as much unknown to me as if he were an inhabitant of Great Britain; but I respect the office.

But it appears that, in this very case, the head of the thigh bone was perceivable, and *was actually perceived* by the examining surgeon. Yet this patient is not said to have been "a very thin person." At page 79, however, we have, in Case 5th of dislocations into the ischiatic notch, a more distinct account of the condition of the patient. "James Hodgson, a sailor, *a strong, muscular man*, was admitted into St. Thomas' Hospital, &c." After stating the appearances and consequent symptoms, he proceeds thus: "Monday evening, the 14th, the swelling had greatly subsided, and I thought I could now feel *the head of the bone*, on rotation of the limb." "Mr. Cooper at my request very kindly saw it in the evening, and immediately declared it to be a dislocation into the ischiatic notch, and upon his rotating the thigh, I could, much more distinctly than before, *feel the head of the bone in the ischiatic notch.*" The reduction was attempted, and in the course of it, "we kept the extension up," says he, "about 10 or 12 minutes before we used the strap to raise the head of the bone, and until I thought it *had made some progress* towards the acetabulum. We then continued the extension, gradually increasing it, and at the same time endeavouring to raise the head of the bone, and turning the knee outwards, for about 15 minutes. I had now *lost the head of the bone.*" The extension was continued some time, and on removing the pullies, the limb was found to be reduced. In this case, the head of the bone was repeatedly observed, and under circumstances resembling those of our case, with this difference, that in that here related, the head of the bone lay much deeper than in ours; yet it was perceived, though the patient was a "strong, muscular man."

Case second of this same dislocation, is the account of what befel WM. DAWSON, aged 34, in a quarrel. His hip was dislocated, and much swelling followed. "On Sunday, 30th of August," says the narrator, "we accordingly met, which was fifteen days after the accident, and from the complete removal of all swelling,

the whole femoral bone was *satisfactorily traced to its rounded head, which was lodged in the ischiatic notch.*" Whether DAWSON was thin does not appear. It seems probable that he was not "a very thin person," being in the prime of life, and having met with the accident, whilst rioting and quarrelling with his companions at harvest home.

Thus, in three out of five cases of this accident mentioned by Sir ASTLEY, the head of the os femoris was distinctly felt; in the fourth it is not noticed whether it was felt or not, and in only one of the five is it positively stated that it could not be felt; and it must be recollected, that in all these cases the head was more deeply imbedded, than in the dislocation downwards.

I feel myself called on to remark further, that the bench on this occasion highly eulogized the skill, success, and wide range of practice of the deponent A., evidently for the purpose of quoting with more effect the opinion of the deponent, that in this case there did not exist any dislocation of the thigh bone. Now I would not at any time be understood to call in question the justice of that eulogy, and least of all at this part of my argument, since it so happens, that this deponent has given a distinct and positive opinion, as to the point we are considering; for in his deposition he says, "Both when the head of the bone is on the back of the hip bone, and when in the ischiatic notch, *the head of the bone can be distinctly felt by the hand.*" How is it that the bench should have so much regarded the opinion of this deponent, when opposed to mine, and yet passed it altogether without notice, when it happened to agree with it? On the contrary, my testimony, even when thus supported, is referred to with obvious marks of distrust; for after having stated that the head of the bone can be felt only "in very thin persons," and requested the jury to consider whether the plaintiff were "a very thin person," and whether his were one of those cases, therefore, "in which it would be *quite easy* to discover the head of the bone," he adds, "Dr. WAR-

REN, and the other physicians in Boston, however, declare that the head of the bone was distinctly felt." *

"The genuine dislocation into the ischiatic notch," referred to in the work of Sir A. COOPER by the Hon. Judge, is adduced for the purpose of showing that in this case the limb is not lengthened, but rather shortened, and the knee and foot turned inwards; "while," says he, "Lowell's are represented as turning outwards." Here again I must remark, that the case described by Sir A. COOPER is a different one from that of Mr. LOWELL. The relations of the head of the os femoris, and consequently of the rest of the limb, vary in regard to two essential points: 1st, as to the acetabulum; 2d, as to the os innominatum. In the dislocation described in Sir A. COOPER's work, the head of the bone is in the superior ischiatic notch, which is *above* and much behind the acetabulum, and the limb must in such a case, be shortened, if its length be in any way altered. In Mr. LOWELL's case, the head of the bone was *below* the socket, and the limb must of course have been longer than the other. Next, as to the relation between the os femoris and os innominatum. In Sir A. COOPER's case, the head of the bone, gliding

* As the Hon. Judge seems to hold our positive testimony on this point at a low rate, I feel myself bound to declare, and I hope it will not be imputed to improper motives that I do so, that there are few points of the surgical art, to which I have been called to give more attention, than those which relate to affections of this part of the body. Diseases and injuries of the hip are among the most frequent subjects of the skill of the surgeon, and during a period of twenty years, I have had, to use the words of a high authority, "no inconsiderable share of experience in these cases;" having rarely been without some instances of them under my hands, and often many at the same time, presenting great varieties of appearance, and calling for the exercise of the most exact discrimination of the eminences and depressions, with a view to determine questions of treatment, in which the health, comfort, and life of the patient were involved. Of course, I was not altogether without the practice required to discover the condition of parts about the hip joint, and to determine, whether there existed changes from the healthy structure.

backwards to the superior ischiatic foramen, would be inevitably turned over, from its inability to draw the whole limb so far back. The result of this would be, that the trochanter would be rolled forwards, as seen in Plate II, and with it the whole limb, the knee and foot being necessarily turned in. But in the dislocation downwards, the state of things is very different. Here the head of the bone passes backwards a little space only, and the change of place is much greater downwards than backwards. The limb does not revolve, or if in any degree, but slightly, and that in the direction backwards instead of forwards; for its head is supported against the os ischium, as exhibited in Plate III. In this same Plate we have an opportunity of comparing the direction of the bone in this case, with its direction in that of the dislocation upwards and backwards; we see at once the great difference between the relations of the head to the acetabulum and os innominatum in the two cases; and may infer the concomitant variation in the positions of the limb.

If we compare the two representations of the os femoris in Plate III, with the representation in Plate II, we may understand its relations with the acetabulum and os innominatum in the three different cases of dislocation backwards. At *a*, Plate III, we see the head of the bone, as in the dislocation upwards and backwards on the Dorsum ilii. The limb is much shortened, the knee and foot turned much inwards. In Plate II, it is seen as in the dislocation backwards into the superior ischiatic notch. The limb is but little shortened, and the knee and foot turned slightly inwards. In Plate III, *b*, we see the dislocation backwards and downwards. The head of the bone is on the os ischium, the limb is much lengthened, while the knee and foot are turned outwards.*

* To Dr. Flagg I am indebted for these views of the different dislocations. Having myself examined the phenomena in a number of instances, I procured a subject, and requested this gentleman, in

These are the representations of facts; they are founded on the anatomy of the parts concerned, and supported by the surgical observations already detailed. I have demonstrated these facts to a class of more than a hundred students of medicine and surgery, and exhibited to them the manner in which the dislocation would be produced, and the position which would be given to the limb, in the dislocation downwards, by the prominence of the socket bone, the lacerated ligaments, and over-stretched muscles. I showed that, in this case, the limb would be very considerably lengthened; that the foot and knee might stand forwards, or turn slightly outwards; and that, above the trochanter, there would be a deep depression, corresponding with the region of the socket. Moreover it was demonstrated, that the head of the bone, when forced from its socket in a direction downwards and backwards, lacerating the capsular ligament, passes below the *Pyramidalis* muscle, raises the *Gemelli* and *Obturator internus*, and, to a certain extent, takes their places; that sometimes the muscles may be ruptured, but that ordinarily they would remain in a state of tension; that the *Obturator externus* and *Quadratus* would be nearly in the same condition; that the *Pectineus* and the strong muscles, *Psoas magnus*, *Iliacus internus*, and short head of the *Triceps*, would be violently extended, and, acting on the bone from without inwards, would press it against the bulge of the socket, and thus fix it firmly in its new position; that the anterior part of the *Gluteus medius* would be greatly strained, and would draw the thigh bone upwards, were it not resisted by the prominence of the socket, together with the action of other muscles.

whose anatomical and mechanical skill I had great confidence, to examine and represent the parts in the dislocation in question, and to ascertain how far they agreed with my views. Dr. Flagg made the examination by himself; and I had the satisfaction to find that the result confirmed me in the impressions received, and the opinions formed thereon.

Such a view of the anatomy of the parts concerned must, I think, satisfactorily show the possibility of the existence of a dislocation backwards and downwards, and the accordance of the phenomena indicated with those of our patient in points essential. The state of rotation may seem to present an exception to this remark; but it has been shown already, that this condition may be varied by circumstances, in the same manner as happens in regard to fracture of the neck of this bone, in which case, though the limb is usually turned out, it sometimes turns in. This opinion will be confirmed, on considering that the round head of the os femoris is sometimes resting on the plain surface of the ischium; and that the position assumed by it will be influenced by the degree and direction of the dislocating force, as well as the subsequent condition of the capsular ligament. The action of the muscles, too, while it is always to be kept in view, is not to be considered in an insulated way, but in connexion with the situation of the bones and ligaments. For the muscles that tend to draw a bone in any given direction, may actually prevent it from proceeding in that direction, by pressing it against a ligament, or another bone.

To say that the head of the bone in the case in question was situated on the os ischium, may, on a superficial view, be considered as a contradiction of my former opinion. It is not so, however; this opinion was, that the head of the bone was lodged in or about the ischiatic notch, and this was as near the fact, as I could properly speak. From a survey of the anatomy of the parts since, I should be disposed to believe that the situation of the head of the bone was probably at the lower part of the ischiatic notch, on the plain surface in front of the spinous process of the ischium. It is easy to quibble about the term "ischiatic notch," but I dispute not for words, but facts. I said that the dislocation was of a particular species, and distinguished that from what may be called a sub-species, by the term *downwards*. If this last expression had not been used, I

might have appeared to confound it with the dislocation backwards. Whether it was in, or near, the ischiatic notch, however, it was equally a dislocation belonging to this one of the four species commonly admitted, and generally designated by the terms I used.

The manner in which the injury is said to have been received, seems to confirm this opinion of the nature of the case. It appears that Mr. LOWELL fell on his back, inclining a little to the left side. Probably he struck the ground with the os sacrum and left ischium, receiving at the same instant the weight of the horse on the inside of the thigh. The knee, and perhaps the foot, were in consequence fixed to the ground by the same weight. In this situation, if the bone were driven backwards out of its place, by the pressure on the inside of the thigh, the head of it would be carried downwards and outwards, in consequence of the confinement of the foot or knee. Such at least was the impression conveyed to me by the description of the patient, at a time when he could have no possible inducement to misrepresent the circumstances. Such, or nearly such, also, is that conveyed by REYNOLDS' deposition, for there is a slight degree of obscurity about this testimony, arising probably from the confusion incident to the circumstances of such accidents.

The deponent A. intimates that a different impression was given to him, by the plaintiff's description, the impression, namely, that he fell on his hip, from which he concludes that the bones were broken and not dislocated. He reasoned, therefore, as before observed, from erroneous data.

That a dislocation, and what is more to the purpose, an ischiatic dislocation, might occur in circumstances similar to those of LOWELL'S accident, is proved by a case related by Sir ASTLEY COOPER. It is that of "John Norgott, aged 40, who was carried into Winchester hospital twelve days after his accident. He reported that his horse had fallen with him, and on him, so that *one leg was under the horse*, while his

body was in a half bent position, leaning against a bank." The injury proved to be a dislocation into the superior ischiatic notch, which was reduced and the patient cured. It may be said that a dislocation backwards, in this way, gives no support to the probability of a dislocation backwards and downwards, from a force applied in a similar way. I am of opinion however, that it does afford support to it. It is obvious that, if it should happen that the knee or foot were caught under the horse, and the limb were in these circumstances dislocated backwards, as in Norgott's case, it would be more likely to be driven downwards and backwards, than directly backwards; because the head of the bone in such a case would be compelled to describe the arc of a circle, instead of moving in a direct line backward from the socket, and this I suppose to have happened in LOWELL's case.

This opinion is confirmed by the following account of a dislocation downwards, produced by an application of force in the same direction as in the case of Mr. LOWELL. "M. Ollivier of Angers, in the third volume of the General Archives of Medicine, has described a luxation of the femur directly downwards, observed by himself." This "was produced by the stroke of a large branch of a tree, which in falling struck the internal and inferior part of the thigh of a man who had fallen to the ground, and pushed it violently in abduction," that is, outwards.

This accident demonstrates that a force applied on the inside of the thigh is adequate to producing a dislocation downwards; while Norgott's case shows, that a force in a similar direction may produce a dislocation backwards; certainly therefore a force so applied may be supposed adequate to produce it in an intermediate direction, or downwards and backwards, as happened in the case of Mr. LOWELL.

"The signs observed," in M. Ollivier's case, "were these; a slight flexion of the thigh on the pelvis with abduction, and a feeble rotation of the limb inwards.

The thigh was a little flexed. There was no sensible elongation of the thigh, on account of the *oblique* direction of the luxated bone. The bend of the groin was deeper than that of the opposite side, without however a great depression; the great trochanter was situated lower than in the natural state, and the hip rounded, and more prominent than that of the opposite side, especially when the patient was examined by placing him at the foot of a bed, after having made him bend both thighs; it did not form folds inferiorly with the thigh. The head of the bone was not distinctly felt; extension of the thigh on the pelvis was impossible; motions of adduction could be slightly executed, though with pain; abduction was possible to a greater extent; the patient when lying on the back, kept the limb slightly flexed."

In this case the limb is said not to have been elongated, on account of its obliquity. By this is meant, probably, that the limb did not appear elongated, because it could not be straitened; for as the head of the thigh bone was directly below the socket, the thigh must have extended lower than the other, had the two been placed side by side.

Further it appeared from this case, that, when the head of the os femoris rested below the socket, there was a feeble rotation inwards. From this fact we have a right to infer that, if the head of the bone had glided backwards to the ischiatic notch and its spinous process, the rotation would have been outwards, necessarily, in consequence of the inclination of that part of the ischium.

In another part of the description quoted above, we find the following passage. "We must, however, make the remark, that, in the different luxations of the thigh, we observe, in different subjects, slight differences in the relations of the head of the thigh bone, and in the lesions of the neighbouring parts; differences which probably depend on the greater or less degree of violence with which the displacement has been ef-

fected, and on the greater or less time since it had taken place.”*

There remains only one species of proof applicable to such a case, which has not been exhibited. Sir ASTLEY COOPER has elucidated and confirmed many of his accounts of dislocations, by descriptions of the actual appearances of the injured parts, as seen in the dead body. Evidence of this kind indeed must afford incontrovertible proof of the existence of particular species of dislocation, and if we could discover a morbid specimen, or the description of one, exhibiting the head of the bone displaced in a direction backwards and downwards, it would be a complete demonstration of the point in question. But the concurrence of circumstances necessary to the existence of such a preparation, would be more than could reasonably be expected in so rare a case. To produce this, we must have, 1st, a case, such as was never seen by PETIT, BOYER, or Sir ASTLEY COOPER; 2dly, the bone must have remained unreduced; 3dly, the patient must have died; 4thly, his body must have been examined; 5thly, the surgeon must have known and distinguished the case; and, 6thly, he must have described it for the benefit of the world.

Such a concurrence of circumstances, I repeat, is hardly to be expected; and yet it has actually existed, and affords me the means of supplying the remaining link in this long chain of facts. There is a case in which the head of the os femoris is so situated as to demonstrate the dislocation downwards and backwards to the senses, a case in which the bones are no longer covered with flesh, nor their relations in any respect obscure. This preparation exists in the collection of Professor DU PUI, of the University of Leyden, one of the most scientific surgeons of the present day. It was observed and prepared by himself. Dr. DYLIUS, in his

* These quotations are from the “Dictionnaire de Médecine,” T. XIII. Article “Luxation.”

treatise "de Claudicatione," speaks of it in the following terms: "As to the fourth species of dislocation, on the os ischium, no specimen is given on either side of the body in a well-formed acetabulum, so far as I know, but if any one regard the remarkable inclination of the pelvis, certainly he cannot doubt the possibility of the existence of this species. Assuredly the head of the bone may slip to this part, as there is certainly a recent and excellent specimen in the collection of the celebrated DU PUI, where the capsule of the joint being relaxed, the head of the femur is placed, not indeed on the os ischium; but in its vicinity, on the sacro-sciatic ligament."* Thus it seems that the bone is, in this morbid specimen, placed on the sacro-sciatic ligament. But the place where I supposed the head of the os femoris to be lodged in the case which we have been considering, is the plain surface of the os ischium, in front of the spinous process of this bone, marked *F* in Plate I. Now the ligament, referred to by DYLIUS, is fixed to this process, and extends backwards and rather downwards, as will appear from considering the inclination of the process. The head of the os femoris, placed on the sacro-sciatic ligament, would therefore be situated lower than the point indicated by me as the situation of it in this accident, and would produce an appearance more strongly marked than in the case of Mr. LOWELL. This morbid specimen therefore must be considered as conclusive and incontrovertible evidence of the actual existence of such a dislocation, as I pronounced to exist in this case.

* "Quartæ tandem speciei, in Ischii osse, quantum scio, ad utramque latus, acetabulo saltem perfecte formato, nulla datur species, sed si quis pelvis modo memoratam inclinationem animadvertit, dubitare certe de hujus speciei possibilitate omnino nequit. Potest certe huc versum elabi femoris os, quale recens egregiumque certe exemplum servat in sua collectione celeberrimus DU PUI, ubi laxata articuli capsula, non quidem ad os ischium, sed in ejus vicinia, ad ligamentum sacro-sciaticum locatur femoris caput."

SINCE the preceding remarks were written, another observation has fallen under my notice, which presents a case of the dislocation backwards and downwards with a more full and precise view of the condition of the parts concerned.

“The luxation on the ischium, or the ischiatic fossa,” says the writer, “is often more difficult to recognise than the former.” After assigning, as the reason of this difficulty, the want of shortening of the limb, he proceeds to quote, from Sir ASTLEY COOPER, the symptoms of dislocation *in the ischiatic notch*, and then relates the following case with the subsequent examination and dissection, as an instance of this dislocation.

“In a man affected with this luxation and observed at Angers by M. Billard, the great trochanter formed a pretty strong projection on the outside, and a little forwards of the bend of the groin; the hip, slightly depressed above and within, was prominent without and below. This wounded man having died two hours after the accident; on dissection we found the head of the femur situated in front of the ischiatic notch, *applied on the external part of the spinous process of the ischium; it had passed below the united tendons of the Pyramidalis and Obturator internus muscles, which obliquely crossed the neck of the bone, by passing above it; the two muscles Gemelli were torn, and the Quadratus raised and strongly extended. The cotyloid cavity was partly covered by the Iliacus and Psoas muscles, the contorted fibres of which were strongly extended, as well as those of the muscles Pectineus, Obturator externus and short head of the Triceps.*”*

The agreement of this statement of the anatomy of the accident is so accordant in every respect with what I have already represented to be the actual situation of

* This observation is found in a volume of the Dictionary of Medicine already quoted. The authors of the surgical part of the volume are CLOQUET, MARJOLIN, ROUX, and MURAT; all of them anatomists and surgeons of the first rank in France.

the parts, that I should scarcely have ventured to print this, after my own account, had not the sheets, containing my views of the matter, been already out of my possession, and in the hands of the publisher. This observation of BILLARD is sufficient, of itself, to overthrow all the reasoning set up on the presumption of the impossibility of such an accident.

It is only necessary to notice, in conclusion, that this case is found in a studied article on luxations, contained in a scientific work, intended for general circulation, and resting its claims to public attention upon the fulfilment of the pledge, given in its Prospectus, that it shall be "as complete as possible," and that "it shall present a faithful representation of the present state of the science on every subject, which it discusses, without neglecting any fact, or even any opinion concerning it." In such a work we find a case of dislocation recorded, in which the head of the femur is found, on dissection, to be as nearly as possible in the situation, in which I supposed it to be in Mr. LOWELL's case; and the writer, moreover, agrees as exactly with me in the name, as in the place, of the dislocation. He calls it "*a dislocation in the ischiatic notch*" (*luxation dans la fosse ischiatique*); and, what is more, he does this with Sir ASTLEY COOPER's book before him.

REMARKS

ON SOME PARTS OF THE CHARGE FROM THE BENCH, AND THE PLEA
OF THE ATTORNEY FOR THE DEFENDANT.

NOT without great reluctance do I feel myself called on to advert, in this place, to some statements contained in the speeches mentioned above, which from their description, could not be noticed before, without interrupting the train of facts. We must first advert to the peculiar manner in which the Honourable Bench seems to have employed a certain review of Sir ASTLEY COOPER'S book, in the New England Medical Journal. It appears that this review contains sentiments favourable to Sir ASTLEY COOPER; "and that the publishers particularly extract the results of Sir ASTLEY COOPER'S observations in regard to dislocations of the hip;" and these observations are quoted to refute the doctrine advanced by me. Thus far it is well. But the Judge would also make me responsible for the opinions of this review, or, in other words, he would employ it to make me contradict my own opinion and confute myself. On what grounds is this severe judgment rendered to me? 1st, because the "*Massachusetts Medical Journal*" is "issued, if not avowedly under the sanction, yet supported by the physicians attached to the Massachusetts General Hospital." 2dly, because the number in which the review appeared, contains an article "furnished by Dr. JOHN C. WARREN." 3dly, "that it is followed by an *account* of an operation, probably that to which the patient submitted, for a dislocation into the ischiatic notch." Can any of these reasons prove me to be the author of the review in question? As to the first, it should have been known that, of eight consulting physicians, and two attending the Massachusetts General Hospital, only the two last, Dr. Jackson and myself, ever had any connexion with the New England Journal. Of course this publication cannot

be considered as sanctioned by the physicians of the Massachusetts General Hospital. 2dly, the fact of my name being attached to one article does not prove that I was an editor of the publication, since every body knows that such articles are furnished by the profession generally, and that the addition of the name to an article is considered evidence of its not being *editorial*. 3dly, it would puzzle a superficial inquirer to ascertain what is meant by the "account of the operation, probably that to which the patient submitted, for a dislocation into the ischiatic notch." On a little research, however, it will appear, that this *account* of an operation is an item in a *list* of operations, printed at the latter part of the said number, in the form of an advertisement, from the Medical School in Boston, to medical students. Such are the grounds on which I am made to adopt opinions thought to contradict those I had before given. The Honourable Judge perhaps confounded three bodies of men, which are perfectly distinct from each other, namely, the physicians and surgeons of the Massachusetts General Hospital, the professors of the Medical School of Harvard University, and the editors of the New England Journal of Medicine and Surgery. The truth is, that though I was one of those, who proposed the establishment of the New England Journal of Medicine, and was for many years an active editor; yet at the time of the said publication, I was not so, and never saw one article of that number of the Journal, as editor. But even, if we were to allow the full force of his argument, and admit that I had been an editor of the New England Journal at that time, was there a propriety in making me responsible for the opinions of an article, standing with this title glaring at his head,—“FROM THE LONDON MEDICAL REVIEW,” a book printed on the other side of the Atlantic?

The Honourable Judge throws out an intimation, that the case of Mr. LOWELL has the signs of a dislocation in the foramen ovale. Can this be made to accord

with the very decisive opinion of deponent A, whose character and skill the Judge has so greatly praised? This deponent denies the existence of *any* dislocation, and he is supported by all the depositions from physicians on that side. The Judge does not appear to have examined the patient, but founds this suspicion of his, on the general resemblance of the symptoms to those of the supposed species of dislocation. The Honourable Judge may be in the right; yet it must be remembered that his notion, not only is not supported by any direct examination of his own, or that of any medical person, but that it is in opposition to all the direct testimony in the case, from every quarter. Some of the deponents on the negative side have shown disposition enough to counteract the evidence given by those who first examined the case. If they could have discovered sufficient foundation for maintaining the doctrine of the dislocation forwards, is it not to be presumed they would have done it? or with the dispositions manifested, would not some of them have done so, with a view to increase the confusion and uncertainty of this case? and, if any of them who saw the patient had this opinion, could they be justified in concealing it, or rather were they not very criminal in doing so? The Judge appears to have been much influenced in forming his judgment, by a consideration of the manner in which the patient came by his misfortune. I have already remarked that reasoning on such sort of evidence is apt to be fallacious, on account of the great uncertainty as to the precise way in which accidents of this kind take place. I apprehend he may have been led to this opinion by misapprehending the fact on which he builds. "The thighs," he says, "were widely separated when the original injury was received, and it is from this cause, as Sir ASTLEY COOPER states, that this species of dislocation arises." I cannot find it recorded, in the deposition of the only man who saw and gave testimony of the events of the case, that the thighs were widely

separated,* nor was it so represented by the plaintiff. Has not the Judge mistaken an expression, found in *Sir Astley Cooper's book* on dislocations, for one supposed to be contained in the deposition?

In order, apparently, to convey to the jury more forcibly the impression of the errors into which we had fallen, the Judge, while he professes that "this is a point to which he would be understood to speak with less confidence, as the supposition is without the direct support of professional testimony," adds at the same moment, "If it was a dislocation of this kind, the mode of reduction is very different from that which is required in cases of dislocation into the ischiatic notch," True, it is so. In a desperate case like this, however, it is presumable to those, who are willing to look on both sides, that the surgeon would vary the application of his powers in every possible manner, before he abandoned his patient. We have already intimated that, in this unscientific way of operating, as is well known to all practitioners, many bad dislocations have been reduced, as well by systematic, as by irregular surgeons.

Finally, we must notice these expressions. "Notwithstanding," says the Honourable Judge, "the failure of this experiment, however, these gentlemen *persist* in their original opinion, and depose to that effect in this case." Astonishing! that we should *persist* in our original opinion, because we had failed in reducing a dislocation which we did not expect to reduce! But I forbear any further remarks. I would not hazard the imputation of a wish to diminish the respect due to a Judge of the Supreme Court; especially as I have not the least suspicion of the existence of any improper intention. It is obvious from his own acknowledgement, "that he had expressed himself somewhat strongly;" that the feelings of this gentleman had, from some cause or other, been drawn too much

* See REYNOLDS'S Deposition, Appendix No. II.

to one side of the case, so that it was not easy for him to see all the facts through the clear medium of a perfectly impartial and dispassionate judgment. I should not have ventured to say so much, had I not been compelled to do so by the respect I owe to public opinion, as well as by a sense of duty to my colleagues, the consulting physicians of the hospital, which, under actual circumstances, appears to me paramount to the other considerations alluded to.

In the course of the remarks made by the attorney for the defendant, we find a frequent recurrence of the terms, "BOSTON FACULTY," "BOSTON DOCTORS," "BOSTON SCHOOL;" and a "BOSTON JURY" is introduced in order to impugn their impartiality. Even the public institutions of this place and its vicinity are alluded to in terms of derision. "Is Harvard," says the attorney, "a faculty of *infallibles*, or the Massachusetts, a hospital of *incurables*;" and again, "bring down upon him the whole weight of the Harvard Medical Faculty, piled upon the Massachusetts General Hospital." Such attempts to effect an object of individual interest, by exciting prejudices against valuable public institutions, and the population of a whole town, are indications of a bad cause. HARVARD, I must tell the learned attorney, is a name, that no American should ever couple with expressions of ridicule. From HARVARD emanated that spirit, which, after nourishing the principles of freedom for more than a hundred years, burst into a stream that spread over the whole community. To HARVARD it is we owe our HANCOCKS and QUINCYS, and OTISES, and ADAMSES, and CUSHINGS, and DEXTERS, and LOWELLS, and others, the first movers, and daring leaders of the revolution.

Nor is the HARVARD of the present day so degenerate from its former literary and political reputation, as to merit the obloquy of the attorney. The spirit of improvement is awake there;* advances in the system of

* The introduction of gymnastic exercises, which I have long desired and promoted, is among the improvements now happily made;

education are making, as rapidly, as established habits and prejudices permit, and that the result will be highly important to this country cannot be doubted, when we see engaged in the plans of melioration, the talents and earnest efforts of such men as President KIRKLAND, Judges PRESCOTT, JACKSON, and STORY, Mr. JOHN LOWELL, Mr. WEBSTER, Mr. PICKERING, Mr. SULLIVAN, Mr. EVERETT, and Professor TICKNOR, and others, whose names might be added to the noble list.

That the Massachusetts General Hospital should have attracted the sarcasms of the attorney is not in the least surprising. Some persons might have felt disposed to exempt a public charity from such remarks; but the general tenor of the argument in this trial would entirely preclude all such expectations. We notice, therefore, without wonder, various satirical expressions besides those already quoted; as for example, "The works of surgery are full of the most tragical catastrophes, though few, perhaps so melancholy as that which seems to have attended the outset of the Massachusetts General Hospital." And again, "The result will stand recorded as a most inauspicious augury for the Massachusetts General Hospital."

Whatever evil omens the counsellor and those with whom he sympathizes may have seen, and whatever inauspicious auguries they may have drawn, have proved as fallacious as they were uncharitable.

This institution has, since the year 1821, been gradually rising in public estimation, overpowering the prejudices of the weak, and acquiring the confidence of the intelligent, till it has now obtained a footing too firm to be shaken. Its popularity is very justly founded on the many peculiar advantages it possesses. The apartments are neat and well ventilated in summer, and comfortably warmed in winter; the food and med-

and will, in due time, give a different aspect to the sons of our Alma Mater, and to the educated youth of the whole country, spreading, as it will, by the force of so distinguished an example.

icine are of the best quality ; all the accommodations the sick can require, are in a state of perfection not attainable in most private houses. These circumstances, together with the permitted visits of friends, the regular superintendance and interest of the trustees, and a confidence in the good intentions of the medical attendants, make this a desirable place of resort.* We find therefore, not only a general disposition in the sick poor to enter its doors, but many in easy circumstances prefer the hospital to a private house. The most distant places and States send patients to the Massachusetts General Hospital, the rich and respectable, as well as the poor and friendless ; and none, besides that in which it stands, contributes a greater proportion of inmates than the State of Maine. Nor in truth has any other a stronger title to its use, for it is well known that the members of the legislature, from Maine, while that State and Massachusetts were connected, afforded an important aid towards the foundation of this hospital. The inhabitants of the seacoast of that State have learnt, that, after transporting themselves in a vessel, at a small expense, they can, if their cases are proper, enter at a very low rate, or if they are poor, even without any fee or reward ; that they can remain till they recover, if they are curable, and should they be destitute of means to return to their homes, that there are never wanting charitable individuals to afford them the necessary aid even for this purpose. They know that there is no distinction between citizen and stranger ; that this hospital opens its doors to every human being ; and that, whether he be an inhabitant of Boston, East-

* When General LAFAYETTE was in Boston, he visited this hospital, and was so forcibly impressed with the excellence of its arrangement, that his secretary afterwards applied to me for the details of the economy of the house, with the intention of carrying them with him to France. This hospital is also the medium through which meliorations, made in other places, in the comfort and economy of the sick, as well as mechanical improvements for their benefit, are introduced in this part of the world, and soon made generally known.

port, or the Sandwich Islands, he gets admission on the same terms, and receives the same attentions.*

The Massachusetts General Hospital is the most noble monument of the triumph of benevolence, which Boston has to exhibit. In a community, not extensive, a subscription of more than one hundred and fifty thousand dollars, for one charitable purpose, is not an ordinary occurrence; an annual subscription of one hundred dollars each, from a considerable number of individuals, is not an event to be recorded of many towns of the size of Boston.† The benefits of this hospital have been experienced by more than twelve hundred sick persons, many of whom, no doubt, but for the assistance provided there, would have been mouldering in their graves; and it is to be considered, that this aid is not extended for a day, or a week, but that it is continued till its object is effected. The proportion of successful cases will bear a comparison with that of any known public institution. In the year in which the list of surgical cases and operations, alluded to by the Honourable Judge, was published, out of about one hundred cases of diseases and operations, only two patients died, and those from violent injuries, in consequence of which they came to the house. A success so remarkable cannot be expected to occur again, perhaps in the long annals of the institution which posterity may see. But I would not have it thought for a moment that I attribute it to any peculiar skill or attention, on the part of the attending surgeon of the institution. No,

* The public opinion of this institution is evinced by the progressive increase in the number of patients.

Remaining and received during the year	1822	-	-	122
“	“	“	1823	- - 207
From April 1, 1824, to April 1, 1825	-	-	-	409
“	“	1825	“	1826 - - - 525

† The president of the hospital corporation, who may be considered the father of the establishment, since by his liberality it received a donation, the magnitude of which gave an impulse to all the others, contributes two hundred dollars annually, towards its support, and to his other liberalities there is neither sum nor end.

so far as obvious causes are concerned, it is to be imputed to the excellent situation and internal arrangement of the establishment; but I should think it as short-sighted, as it would be arrogant, to look anywhere for the source of this extraordinary success, but to HIM, who is the great Fountain of life and health.*

* See Appendix Z.

APPENDIX.

No. I.

The following statement of the testimony of J. A. Lowell, one of the witnesses for the plaintiff, and Joseph Coffin, a witness for the defendants, is extracted from the "Report." It will show the nature and grounds of the charges against the latter. The names of the defendants are omitted, their places being supplied by letters.

JOSHUA A. LOWELL testified, that he was clerk to the plaintiff in 1821, when he had his hip dislocated. He was called by Mr. Stearns into the room, where they were trying to set it. There were several persons present. The witness proceeded to give an account of the operation performed by Dr. I. with Dr. K. Mr. Lowell was placed across the bed. A sheet was put round the well limb, and a towel tied round the knee of the lame one. Several persons took hold of the sheet, and several hold of the towel, extending in contrary directions. The limb pointed off in an awkward position. They first extended it, and then carried it in toward the other. Dr. K. had hold of the end of it by the ankle, carrying it in: Dr. I. was feeling for the head of the thigh bone.—When I first came, I found Dr. K. trying to set the limb.—When Dr. I. arrived, he first examined the hip; had some conversation with Dr. K.; went out a short time with him and returned. The examination was not more than four or five minutes. Lowell inquired of Dr. I. respecting his situation. Dr. I. answered, that he thought the hip bone was dislocated, and the socket a little fractured; and said, that they would set it; to this Dr. K. assented. They were not more than ten or fifteen minutes about it. They then said it was set, and well set. Dr. I. assisted occasionally in taking hold of the end of the limb and the towel and bearing in towards the well limb. After this they put a handkerchief round both limbs. I saw no difference in the length of the limb. Dr. K. said, Lowell must lie here three days. Dr. I. said, "Three days? you must lie there three times three; you must lie fourteen days." Lowell asked I. if it would not be necessary for him to come over next morning. Dr. I. said no, that Dr. K. would be there, and he would give him particular charge how to proceed. Dr. K. was then in another room. When he returned, Dr. I. told him that he must bleed him next day; for he had not bled very well; and said something about medicines. Dr. K. and Dr. I. both said that Lowell was doing very well, and would not be detained from business but a short time.—Dr. K. called

next day and was in occasionally, and frequently at first; I was not knowing to his making any examination. He prescribed and brought liniments.—Lowell was in great pain, especially the fourth or fifth day; and complained and said he was afraid his hip was not set. On the 5th or 6th day I sent over by Mr. Brooks to tell Dr. I. that my brother was in great pain, and wished him to come immediately. He came on the fifteenth day after the operation. Lowell kept confined to his bed fifteen days after the injury. He got up immediately before Dr. I. came, to have his bed made. He rested on my shoulder and the bed post while it was made. I was not present at the interview. Dr. I. sent medicine soon after his return, and at one other time. He kept his bed three days after that; making eighteen days. Ten days after this (1st of October), Dr. I. came the third time. He was not sent for at this time, to my knowledge. I was present. I had hired another person to take care of the store, and attended exclusively on my brother. This time Mr. Lowell stood up and rested on my shoulder, and asked Dr. I. the cause of the hollow of his hip. Dr. I. did not examine it. It was apparent outside of his trowsers. Dr. I. said it was a natural consequence, and when he gained strength it would fill up. Dr. I. said he was doing well; that his case was an important one; every thing was right then, and he would not be detained from his business more than a few weeks; but that he must be careful; it would be better that his house should burn down about his ears, than that he should make one misstep. Dr. I. told Lowell to write to him; and he would come or send medicines. He took hold of the limb and swung it, and said it was all right. I saw no comparison of the length of the limb. This lasted five or six minutes. He appeared to be in a hurry.—On the 23d of October he came over a fourth time, and tarried then but a short time. When he came, he observed, that he wanted to ask my brother a few questions. My brother said he wished to ask a question. “What is the cause of the difference in length between the limbs?” I did not make an immediate answer; he waited for some minutes; and said, it looked as though it was not set; that he was in a great hurry, and would be over again next day. His observation was, either that it looked as if it was not set, or was not in its place; and said, “Tomorrow I will come and give it a thorough examination.”—Next time, eight or ten days after, saw Dr. I. at Eastport, about the 3d of November; I told him my brother was anxious to see him; that he was in considerable pain. I said he was so driven that he could not possibly leave; but he said that he would come over that afternoon. I asked him his opinion; he said he was afraid the bone was not set. He said, that he would come over that afternoon, unless the witches prevented. He came over on the 19th of November, with Dr. ——. I was not present.

Mr. Lowell's family was absent at this time. I attended on my brother carefully. The length of the limb and appearance continued the same; we did not discover the increased length till the 23d of

October. The injured leg, very soon after the dislocation, contracted, and my brother complained of pains in his hamstrings. This took place within a few days, and before he left his bed. He lay crooked up in bed with the bandage on—the limbs eight or ten inches apart—as to this I am not quite positive. The operation was performed in a small room. I saw no comparison of limbs at that time. After the operation I went to the boat. I said K. was an old quack; that he was not fit or he would not trust him to doctor a goose, or something to that amount. I did not recollect this on the former trial, nor in giving my deposition. It arose in my mind after hearing Winslow.—The witness being questioned concerning the first operation performed by Dr. I., stated that the plaintiff was laid lengthwise of the bed; a ball of cloth was placed between the thighs; the injured limb was carried out; and the ball served as a fulcrum for the leg to pry over, and be made use of as a lever. Dr. K. worked some time, and said he believed it was set, and asked me if I did not think it was not. I said I could not tell. Coffin said he thought it was not; and advised to send for Dr. I. Coffin and I went in another room, and he advised me to send for Dr. I. I asked him why he did not advise Dr. K. so. We went into the room where my brother was and asked him about it. He mentioned it to Dr. K. and the Doctor consented to it.

Cross Examination.—The plaintiff lived at Lubec, near Dr. K. Dr. K. was his family physician. After Dr. I. and Dr. K. consulted, Dr. K. asked what part he should take in the operation? Dr. I. answered, "What part would you like?" Dr. K. replied, "A second hand's birth." Several persons assisted. Dr. I. directed. Dr. K. took hold of the foot. Dr. K. called frequently; he called two or three times a day for several days. The plaintiff was moved into another house before the 23d of October. I never testified this before. He was moved by walking; and went considerable distance. My brother made no complaint of Dr. K.; but said that he had never examined. When the operation was performed several observed there was a grating. Dr. I. said that was the noise of the bone going into the socket. Dr. I. asked my brother whether it felt easeir or more natural. He answered yes.

I did not hear my brother ask Dr. I. to attend further, nor request him to attend as a physician. He proposed to send a boat. Dr. I. never came with Dr. K.; always alone. Dr. K. did not make any new engagement.

I, JOSIAH COFFIN, of Campobello, in the County of Charlotte, Province of New Brunswick, of lawful age, do testify and say, that I was at Lubec in September, 1821, near Charles Lowell, when he fell from a horse; received a bad injury of the hip by the horse falling on him. I helped carry him into the house; was present and

assisted when Dr. K. operated upon him; after which it was thought best to send for Dr. I.; he came over as soon as possible, considering the distance and badness of the ferry from Eastport to Lubec—I think in about two or three hours. After Dr. I. examined Mr. Lowell's hip, he took Dr. K. into another room; in a few minutes they returned, said Mr. Lowell's hip joint was out, and the socket that received the head of the thigh bone was fractured, and Lowell must suffer another operation.—Dr. I. ordered preparations to be made, and proceeded to operate on Lowell, and I assisted as directed.—Dr. K. assisted with others. Dr. I. gave directions and took his stand to manage the head of the bone. After some exertions of Dr. I. with our assistance, Lowell said that he felt the bone go into its place. Dr. I. said he felt it go into its place, and told us to give back; then asked Lowell if he did not feel more free from pain; Lowell said he did; then I. and K. examined the hip. I. took hold of the injured limb, raised it up, and turned it in every direction with ease; it appeared to move easy without giving him pain. Lowell said it felt natural; but before I. operated, the injured limb stood in an unnatural position, standing outward from the other, and could not be carried inward without giving Lowell great pain; but it appeared at this time in its proper place. I. saw I. and K. take hold of his knees; but I saw no difference in the length, but both legs were of a length for any thing that I saw. Both I. and K. pronounced the bone set. I. was very minute in his directions—told Lowell that it was different from simple luxation; that the bones that formed the socket were fractured; that they must have time to unite; told Lowell that much depended on his taking good care of himself; that he feared that he would be a cripple for life—that he expected that he would be in much greater pain five or six days hence from inflammation; and that it could not be helped; that he should advise Dr. K. to make use of such means as was in reach of medical aid to keep back inflammation, and bleed him again next day; that he would send medicines over by the boat, if Dr. K. requested it. I am confident that Mr. Lowell's housekeeper was not in the room after the bed was fixed, but she handed at the door sometimes such things as were called for; but Joshua Lowell generally went for what was wanted. Mr. C. Lowell asked Dr. I. to attend him. Dr. I. said that he had a large number of sick at Eastport, that were depending on him constantly, which rendered it impossible. Lowell spoke about sending a boat for I. the next day; which I. replied that, if his business would admit he would come; but told Lowell that he could not attend him, and desired him not to depend on him, for he did not know that he could come at all; he did not think it necessary for him to come over, as Dr. K. was on the spot, and could come in at any time; that there was not much to be done; told Mr. Lowell he must keep still; the case ought to be left mostly to nature, as the thigh bone was in its place; and as the fractured socket was as well as the nature of the case would admit of, or words to that effect.

From twelve to eighteen days after the injury, I was present when Dr. I. examined Lowell's hip. Lowell asked him why he did not come over when he sent for him; he replied that he was very busy and had many sick to attend, but at the time you sent for me I was engaged in midwifery. Mr. Lowell told Dr. I. that he had a fit, and was afraid that he had got the bone out of its place; he then got off from the bed by the help of me; then Dr. I. examined his hip. Lowell asked the reason of a hollow at the outside of his hip. Dr. I. said that his socket bone being fractured caused pain, and would for sometime, but when he gathered strength the hollow would fill up, but he did not see any thing but he was as well as the nature of the case would admit of.

Question by the Plaintiff. That evening or at any other time did you hear Dr. I. say, that if he had not come to me I should have been a cripple for life, and that it was a pity there was not some living spectacle of Dr. K's ignorance and quackery, or words to that effect?

Answer. I do not recollect if it was, I do not recollect it.

Question by the same. Do you know that Dr. I. demanded the payment of his bill for services in this very case at ten o'clock at night on board the packet when he found that I was going to Boston to see Dr. Warren?

Answer. I do not.

Question by the same. When you left my house on the evening of the operation by Drs. I. and K., who remained in the room with me?

Answer. I do not know, I believe there was two or three. I believe Mr. Stearns, Mr. Sumner, and Mr. Bigelow.

Question by the same. Who was present when Dr. K. and I conversed that evening, as you have stated above?

Answer. I could not say all that was there. I believe Mr. Stearns, Mr. Sumner, and Dr. K. was there. I do not know but your brother was there.

Question by the same. Who went from my house that evening in company with you?

Answer. I think it was John Winslow.

Question by the same. Where was Dr. I. at that time?

Answer. I do not recollect whether Dr. I. was there or not, when I came away from the house.

JOSIAH COFFIN.

No. II.

JOTHAM G. REYNOLDS deposed, that he was the owner of the horse on which Lowell was riding, and was present when he received the injury. Lowell fell on his back; the horse fell obliquely across his thighs, and other parts of his body, so that his weight was more on one hip than the other.

There is a slight variation in the report of this testimony; as contained in the pamphlet of the plaintiff it is as follows.

I, Jotham G. Reynolds, of Lubec, in the county of Washington, do depose, testify, and declare—

Question by Charles Lowell, plaintiff.—Were you the owner of the horse by which I got hurt, in 1821?

Answer.—I was.

Ques. by same.—Were you present when I received the injury?

Ans.—I was.

Ques. by same.—Did I fall on my back, or side?

Ans.—It appeared to me, you fell on your back.

Ques. by same.—As I fell, did the horse fall directly across my thighs?

Ans.—It appeared to me, at the time, that the horse fell obliquely across the thighs and other parts of the body, *and it appeared to me, that the horse fell partly betwixt the legs*, so that his weight was more on one hip than on the other.

 No. III,

The following extract from the Address of the Attorney for the Defendant, will give an idea of its style and manner.

IF any thing could add to our perplexity on this occasion, it would be to consider the determination with which these learned gentlemen undertook to put this poor plaintiff so resolutely to the rack, upon the strength of this precipitate and ill advised opinion. It is true, Dr. Townsend says, they thought there was no great chance for him. And Dr. Mann declares it to have been their unanimous opinion, that the attempt would prove unavailing. It was on this groundless supposition, and when there was so little prospect of success, according to their own avowal, that they undertook to put it to the test. What with their warm baths and smart cathartics, profuse bleeding, nauseating doses and preparatory drenches to relax the muscles, and

then sheets and cords and bandages and pullies, with the whole accumulated force of the mechanical powers employed to wrench his limbs, according to Desault's most approved method of reducing luxations, until the head of the bone was fairly lifted from the socket it was thought to have formed—the agonies endured by Lowell under this operation could scarcely have been less than those of Damiens, for his attempt to assassinate Louis the XVth; for there is a point beyond which human anguish cannot extend, and at which a merciful insensibility commences. An account of the execution of Damiens, found in the French Philosophical Dictionary, is as follows: He arrived at the Place de Greve at a quarter past three, regarding with a dry and steady eye the spot and instruments assigned for his execution. After some painful preliminaries, as well to be omitted, they proceeded to the business of dismemberment. Four powerful young horses, which had been provided, made incessant efforts for the space of fifty minutes to tear his limbs from his body, without being able to effect the object. At the end of this period, he being still alive, they were obliged to make use of their instruments to separate the joints, as had also been done in 1610 in the case of Ravallac. He breathed a few minutes after the thighs were removed; and it was not until his arms were amputated, that he gave up the ghost. This operation lasted, from the time he was placed upon the scaffold until he ceased to palpitate, nearly an hour and a half.

How long the present experiment was continued, or how often it was repeated, or the patient fainted under the operation, does not appear from the depositions. His own courage, it seems, was unexhausted. Why, then, with all this prodigious power employed, why was not the dislocation reduced? For this plain reason; because no dislocation existed. Simply, because the thing was impossible; there was nothing to reduce. The wonder is not that the operation was not successful; the only wonder is that the plaintiff survived it. If the plaintiff had suffered any real injury, at the time he brought his action, from ignorance or unskillfulness, to whose hands is it to be attributed? By their own statement these deponents persevered in performing the operation, which Dr. I. had declined to undertake, until it was proved to be perfectly impracticable. The presumption, therefore, is at least equal against any dislocation: the burden would certainly be upon them to prove that one existed; and if the plaintiff had been advised to prosecute this formidable phalanx, for thus violently undertaking to set a limb, that did not prove to be out of its place,—upon this authority, upon this reason, and on this evidence, what could have been their defence—and what could have protected them against a verdict, excepting the charitable supposition, that they must have been under some strange planetary influence or infatuation?

No. IV.

Interrogatories proposed to JOHN C. WARREN, JAMES MANN, THOMAS WELSH, DAVID TOWNSEND, and ROBERT HEWES, by the plaintiff :

Question 1st. Did you make an attempt last December to set or replace the head of my thigh bone, which had been displaced from its socket ; or were you in consultation on my situation, previous to any operation in your presence on me ; or were you present, or did you take any part in an operation for the above purpose ?

Question 2d. Who were the persons with whom you consulted ?

Question 3d. What was their opinion of my then situation and real injury ; and were they unanimous in that opinion ?

Question 4th. Did their opinion coincide with yours ; and what was yours, and is your opinion of my case ?

Question 5th. If a surgeon should undertake to set a dislocated limb of this kind, and should use no greater force than could be applied with the naked hands, without any thing fastened about the parts, to enable them to hold on, &c. ; and should not succeed at all, would you say that he used the means, or acted with the skill and management, that a surgeon ought ?

Question 6th. Before a surgeon should give up in such a case, or say that the limb was set, when it was not, ought he not to bleed the patient, or use other means of relaxation, and then make another effort ?

Question 7th. If the limb in the case like the above, hung off from the body in a very awkward and unnatural position, and could not be moved in towards the other limb, without appearing to give extreme pain, ought not a surgeon of common or ordinary skill, to know from that circumstance, as well as from the circumstance of the injured limb being three inches longer than the other, that it could not be in its proper place ?

Question 8th. Is not the return of the thigh bone to its original socket usually accompanied with so loud a noise, that it must be heard by all in the room, and could not be mistaken, especially by a prudent and discerning surgeon ?

Question 9th. Would not a common caution and attention require the attending surgeons to examine the limb occasionally ; especially if the patient should complain of much pain, long after the injury ?

Question 10th. Would not a surgeon of common and ordinary skill and care have compared the length of the injured limb with that of the other ?

Question 11th. Is it not a general rule, that an injured limb like the abovenamed, being several inches longer than the other, is an indication that such limb is not in its proper place ?

Question 12th. In attempts to set and reduce a dislocated limb

of this kind, is not a fulcrum, or something to answer its purpose, necessary ?

Question 13th. If a person, whose hip or thigh bone was dislocated, as mine is, and set in three hours after the injury, should lie on his back fourteen days without turning, having his knees tied together, would it be in his individual power to get the bone out of the socket again, while in that situation ; or to make the necessary extension of the limb to lodge the head of the thigh bone three inches below the socket, where mine is ?

Question 14th. Is not the natural action and re-action of the muscles and cords about the hip, such as to require something of a relaxing nature, and a powerful force to be applied in order to extend the limb three inches, or even one inch, beyond its natural length ?

Question 15th. If it were possible for one in the situation described in the thirteenth question, to get the bone out of the socket again, would not those strong cords and muscles immediately contract and draw the limb up, instead of causing such an extraordinary extension as to make it three inches longer ?

Question 16th. Is my case any thing more than a simple luxation ?

Question 17th. From your examination of my case, do you think that the head of the thigh bone of my injured hip or thigh is lodged in the ischiatic notch ?

Question 18th. Would it not be necessary to extend my leg considerably in length before the head of my thigh bone, last named, could be removed from its present lodgment ?

Question 19th. In December, 1821, did you make an attempt to set or replace the head of my thigh bone, which had been dislocated from its socket by a downward luxation ?

Question 20th. Did you then, or do you now, consider my case any other than a simple luxation ?

Question 21st. When the hip is disjoined, is not the difference in the length of the injured limb and the well one so great as to be a visible and decisive proof of dislocation existing ?

Question 22d. If two surgeons were called in to see a person whose hip had been disjoined only two or three hours before, and they should operate—say that they had set the bone, and should subsequently attend the patient for the space of six or seven weeks, and in that time the patient should repeatedly tell them that he was in great pain, and that he feared something was wrong ; and they should at their several visits say that all was right, and that he was doing well,—but it should eventually prove that the bone was all the while out of joint, would you not say, that it was a strong mark of gross ignorance, or inattention on the part of the surgeons, that they had not discovered the true situation of the limb before ?

Cross Interrogatories put to JOHN C. WARREN, M. D. and the other deponents on the part of the Defendants.

Interrogatory first. What is your profession or business, and how long have you been engaged in it ?

Second. Have you ever reduced a luxated hip joint? and how many? did you ever see a downward and inward luxation of the hip joint? did you reduce it? did you ever know any one reduce such a luxation?

Third. Do you know Charles Lowell, of Lubec? if you do, please state how, and when you became acquainted with him?

Fourth. Was Lowell's hip joint dislocated when you saw him—if so, what were the reasons that induced you to think so? Please state particularly and minutely all the facts and appearances respecting it?

Fifth. Do you not think it possible you may have been in an error in your opinion in the case?

Sixth. Have you never before in the course of your professional practice made as great a mistake as it would be to pronounce Lowell's hip joint dislocated when it was not?

Seventh. Do you not consider Lowell's case of such a nature as that medical men of high standing in the profession would be likely to differ in opinion respecting its present situation, or at the time you saw him; that is, whether it then was or now is dislocated or not?

Eighth. Would not a luxation of the joint, or fracture of the lower edge of the acetabulum, the necessary violence done to the parts in producing these and replacing the bone, together with a consequent rheumatic affection of the limb, hip, and pelvis, attended with some distortion, particularly of the latter, be alone sufficient to account for all the appearances in Lowell's case, when you saw him, without supposing the head of the bone out of its proper socket?

Ninth. May not the soft and bony parts about the hip joint, especially in a muscular man, be so injured as to render it impossible for the most competent surgeon, some months after the injury, to judge what was the actual situation of the patient, or what ought to have been done for him at the time of the injury?

Tenth. Did you make any attempt to relieve Lowell's disability? if so, what were the means made use of, and what was the result? Please to be minute and particular.

Eleventh. Do you consider dislocation pullies necessary in reducing luxations of the hip joint? what proportion of cases can be, or are reduced without them? do not medical men differ in opinion with regard to their being used at all? and have you never known or heard of a case or cases being successfully treated by the hand after the pullies had failed?

Twelfth. Have you never known a case of dislocation where the surgeon first called, declared the pullies necessary to reduce it, and while preparations were making therefor, another man stepped in and reduced it by hand? and who was the surgeon first called in the case?

Thirteenth. Do you think any blame should attach to a surgeon for not using the pullies, when he succeeded perfectly well in reducing the dislocation without them?

Fourteenth. If you are of opinion that Lowell's hip joint is now out of place, do you not deem it possible that it might have been reduced at the time of the original injury, and afterwards displaced by accident or misconduct of the patient, and this done without the knowledge of the surgeon, and without his being able to prove the fact in a Court of Justice?

Fifteenth. Is it customary for a surgeon after once reducing a luxation, to watch the patient night and day to prevent such accident or misconduct, or to take with him in his visits a credible witness to prove the correctness of his own conduct, and guard himself against the malice and intrigue of a litigious patient?

Sixteenth and Seventeenth Interrogatories in the original, crossed out.

Eighteenth. What weight would you give to the opinions of common people standing by or assisting to reduce a dislocated hip, as to the professional skill with which the operation was performed, or are people in general competent to describe the means used by a surgeon to reduce a dislocated hip?

Nineteenth. What is ROBERT HEWES's character as a surgeon?

Twentieth. Do you know any other matter or thing advantageous to the Defendants, or either of them? if so, please to state the same as particularly and minutely, as if thereto specially interrogated.

JOHN C. WARREN, of said Boston, Doctor of Medicine, to the said several interrogatories and cross interrogatories, doth testify, depose, and say :

1. To the first he saith, that in December last, he did make an attempt to replace the thigh bone of Charles Lowell, the person here present; this was done at the Massachusetts General Hospital. I did enter into consultation with several gentlemen upon his situation, previous to any attempt being made to replace the dislocated bone, and took a principal part in that operation.

2. To the second he saith, the persons with whom he consulted were Doctors TOWNSEND, WELSH, MANN, and SPOONER, Consulting Physicians of the Hospital.

3. To the third he saith, that they were unanimously of opinion that the hip was dislocated.

4. To the fourth he saith, that their opinion did coincide with that of this deponent. His opinion then was, and still is, that the hip was dislocated.

5. To the fifth he saith, that it is difficult to give a precise answer to this question, on account of the generality of its terms. This deponent has heard of cases in which manual force only has been applied with success. But he is of opinion that in case a surgeon should use manual force only, and know that it did not succeed, such surgeon could not be said to have acted with proper skill and management, and used due means to reduce the dislocation, if he applied no further force than could be applied by the naked hands.

6. To the sixth he saith, certainly he should.

7. To the seventh he saith, the circumstances enumerated in the question, would lead this deponent strongly to suspect that the limb was out of its place ; but he should not consider these indications decisive.

8. To the eighth he saith, it frequently happens that such a noise is heard, but not uniformly, when the bone is restored to its socket.

9. To the ninth he saith, that if the patient should remain apparently without much pain, he should not consider such examination necessary ; but if the patient should complain of much pain, and for a considerable time after the injury, he should think such an examination ought to be made.

10. To the tenth he saith, Yes.

11. To the eleventh he saith, that the circumstance of the limb being three inches longer than the other, is an indication that the limb is disordered, but is not a necessary indication of a dislocation of the bone. It might proceed from two other causes ; either from a fracture of the neck of the bone, with a relaxation of the muscles, or from a simple relaxation of the muscles.

12. To the twelfth he saith, that it is generally necessary, but is not in all cases indispensable.

13. To the thirteenth he saith, that in his opinion it would not be in the power of the patient to displace the bone, under the circumstances stated.

14. To the fourteenth he saith, that the structure of the part is such as to require great force to extend the limb one inch beyond its natural length.

15. To the fifteenth he saith, that it would depend upon the direction in which the head of the bone should be forced out of its socket. If forced downward, the limb would be extended ; if upward, it would be shortened.

16. To the sixteenth he saith, that he has no reason to think that it is.

17. To the seventeenth he saith, that that is his opinion.

18. To the eighteenth he saith, No.

1. To the first cross interrogatory, put on the part of the Defendants, he saith, that his profession and business is that of a physician and surgeon, in which he has been constantly engaged for the last twenty years.

2. To the second he saith, that he hath frequently reduced a luxated hip joint ; the number of instances he cannot recollect. He does not recollect ever to have seen a downward and inward luxation of the hip joint.

3. To the third he saith, that he saw Mr. Lowell for the first time some time during the last winter ; the precise time he cannot tell. The place was Clark's Tavern, in this place. He was removed in the course of a few days to the Hospital, during which time the deponent saw him several times.

4. To the fourth he saith, that in his opinion, the limb was dislocated at that time, and his reasons for believing so, were, first, that

the knee hung out from the other in an awkward and unnatural manner; secondly, that the thigh of the injured side was longer than the other, or in other words, that the knee projected lower than the other; thirdly, that the flexor or hamstring muscles were contracted, so as to keep the leg continually bent; fourthly, that the trochanter major was not to be felt in its proper place; fifthly, that the head of the dislocated bone could be felt in an unnatural position, in or about the ischiatic notch; sixthly, that the patient had not a free and natural use of the limb, but its motions were constrained in such a manner as happens only in the case of a dislocated limb, by the head of the bone being lodged in the ischiatic notch; that is, in a dislocation backward and downward. The dislocation of Mr. Lowell, in the opinion of this deponent, was one of that character.

5. To the fifth he saith, he doth not.

6. To the sixth he saith, that he doth not recollect any.

7. To the seventh he saith, that it was a dislocation difficult to discover; but one about which, in his opinion, men of high standing in the profession could not differ.

8. To the eighth he saith, that he thinks the appearances in Mr. Lowell's case could not have been produced by any or all of the circumstances enumerated in this question.

9. To the ninth he saith, yes, such a case may exist.

10. To the tenth he saith, that, as before stated, he did make such an attempt; the means were these: the patient was placed upon his right side and secured to a table, and further secured to a neighbouring wall by a sheet passed between the thighs, and a force was applied immediately above the knee of the injured limb, in a direction to draw it forward and inward. At the same time a force was applied at about the middle of the thigh, at right angles with the limb, in such a direction as to draw the head of the bone toward the socket. The forces were gradually and alternately increased for the space of about an hour, and till all prospect of success was at an end. The force at right angles was applied by pullies, and the other by the strength of several persons by means of bandages and cords. By way of preparatory measures, the patient took a powerful cathartic in the morning, and went into a warm bath. And in order to relax the muscular powers more fully, immediately before the operation he took nauseating doses of tartrate of antimony, and was bled as freely as possible.

11. To the eleventh he saith, that he doth consider them necessary, though not indispensably so; the greater proportion of cases can be, and are reduced without them. There is some difference of opinion with respect to their use, though the most celebrated authors decidedly recommend their use. He has never known a case treated successfully by the hand after the use of pullies had failed.

12. To the twelfth he saith, he hath never known such a case.

13. To the thirteenth he saith, that he should not.

14. To the fourteenth he saith, that if the dislocation had been reduced, he should think it possible the bone might be thrown out

of its place again, by the application of considerable force, or the use of considerable motion of the limb, soon after the reduction.

15. To the fifteenth (objected to with the three following as above) he saith, No.

16. To the sixteenth he saith, that, in his opinion, a surgeon, who employs the best means in his power, ought not to be responsible in damages; and that a surgeon who has opportunity to examine a case of dislocation, immediately after the injury, other circumstances being equal, has better means of judging of the nature of the case, than one who examines the case several months afterwards. Still he is of opinion that the case may be such, that it may be quite apparent, several months afterwards, what the real nature of the injury was.

17. To the seventeenth he saith, that not having had a distinct account from Dr. I. himself, of the mode of treatment practised in Mr. Lowell's case, he does not feel qualified to give an opinion on his practice.

18. To the eighteenth he saith, that he should attach no importance to the opinions of persons thus situated, as to the professional skill with which an operation was performed; but he thinks that intelligent persons, without professional skill, might describe with sufficient accuracy the visible means used in the operation.

19. To the nineteenth he saith, that the said Robert Hewes has some reputation for reducing dislocated limbs.

20. To the twentieth he saith, that he knows nothing more, unless it be material that the letter hereto annexed, dated April 12, 1822, marked A, was written by this deponent at the time it bears date, and forwarded according to its direction. This letter is hereto annexed (the said Lowell objecting thereto) at the request of A. Peabody, Esq. representing Dr. I. At the time of writing that letter, as far as this deponent can recollect, he was not aware that any judicial proceeding was pending on the subject.

JOHN C. WARREN.

Note.—On reviewing my deposition, I find myself not altogether satisfied with the degree of precision in the expressions of some parts of it; and endeavouring to recall to memory the reasons that might have prevented me from giving it that attention, which, since the formidable criticism to which it has been exposed, might be thought to have been required, they seem to be nearly these—When I was called on to give this deposition, I did it under the impression that there would not be any important question as to the anatomy or surgery of the case. It would turn, as I thought, and still think it should, exclusively *on the charge of negligence*. My deposition I regarded, therefore, as *a mere matter of form*. No part of the deposition was written by me, but by the commissioner; nor did I myself read it over after it was written. Finally, the period of the examination was more than two years from the accident; and I was called suddenly to answer questions on points, most of which had not entered my mind from the time I saw the patient till that moment. These facts will, I hope, with every candid mind, form my excuse, if any be required, for a want of exactness in the language of the deposition. For illustration, I will furnish an instance of the description alluded to. Being asked, whether I had ever

reduced a dislocation of the hip joint, answered, that I had reduced a number, but could not recollect *how many*. The defendant's attorney, advertig, in his manner, to this answer, said, that I "was not able to charge my mind with the number of cases," or words to that effect; obviously meaning to intimate, that the number of hip dislocations I had reduced, was not likely to be worthy of consideration. Now any reflecting person will perceive at once, the impossibility of my having been able to answer suddenly, and without previous consideration, what number of cases of this or any other dislocation I had in the course of practice reduced. Since his publication I have been necessarily led to ascertain, as nearly as possible, what number of cases of hip dislocation I have seen; though I would by no means aver I have recollected the whole number.

No. V.

LETTER TO DR. I.

Boston, April 12, 1822.

Dear Sir,

In reply to your letter requesting my opinion on the question, whether Mr. Lowell's dislocated thigh had been reduced, I beg leave to say :

FIRST—That every person will understand it to be impossible for me to say positively, that the limb was not reduced, provided especially there is any positive testimony that it was so.

SECOND—That my opinion certainly was, that the limb had not been reduced, for the following reasons.

1st—That if it had been reduced, it would not have been again luxated without great violence, on account of the depth of the socket; and I did not understand that any such violence was inflicted after the efforts to reduce it.

2d—That this dislocation is so difficult to reduce, that I presumed it would remain unreduced often in the hands of the best surgeons, and with the best means. If such a case were to come to me, I should have many doubts of being able to reduce it in a muscular man, even in its most recent state, especially without dislocation pullies.

For these reasons my opinion was, that the dislocation which was thought to be reduced, was not so, in fact. I would not, however, oppose an *opinion* to any positive testimony.

In any case, I presume that no blame is to be attached to you, as the case is a very difficult one, the worst of four kinds of dislocations of the hip, and I presume, also, that you did every thing that circumstances admitted.

I am, Sir, your very obed. servt.

J. C. WARREN.

It may be a question, whether the acetabulum had been fractured; but as time enough for it to unite had elapsed when I saw him, I can give no opinion on this point.

Deposition A.

I, —— A——, testify and say, that in the month of June, in the year 1822, I examined Charles Lowell, then at Eastport, respecting an injury of his hip, which he stated to have happened the fall before. My examination was lengthy and critical, and my opinion then was, that the thigh bone was not out of joint; and I have not altered my opinion since. From the nature of the injury as described to me by the said Lowell, it could hardly be possible that the hip should be dislocated. A fall on the hip, with the weight of a horse upon it, would be likely to break the bones of the pelvis, and might drive the head of the bone through the bottom of the socket, but could not dislocate the joint; and, in my opinion, if there is any derangement of the bones, it is a fracture, and not a dislocation. In that case, it would not have been in the power of Dr. I. or any other medical man to have rendered the said Lowell any effectual assistance, more than to have administered remedies to keep down inflammation; they could not have altered the situation of the bones. As for the apparent lengthening of the affected limb, I think that is owing to the preternatural contraction and relaxation of the muscles situated about the hips; and is made to appear so by the twisting of the bones of the pelvis on the spine. Any person, when sitting in a chair, can, by an exertion of the muscles, make one knee project beyond the other, as much as Lowell's did when I saw him. The same lengthening of the limb takes place in a disease of the hip, called the hip disease, which partakes of the nature of white swelling, where no external violence has been received. It is difficult to determine in case of injuries of the hip precisely what the injury of the bones is; but it has frequently happened, within my knowledge, that by a fall directly on the hip joint, though the bone was not dislocated, as was evident by the natural position of the foot and limb generally, and from its being moved by the hand of the surgeon in all directions, yet the patient has never recovered from his lameness; and in several instances they have never been able to walk afterwards. In cases where the thigh bone is dislocated backwards, and the head of the thigh bone rests on the back part of the broad hip bone, the limb will be a little shortened, and the foot will point towards the other foot, and cannot be turned outward in the least. In case the head of the thigh bone should be lodged in the ischiatic notch, so called, the limb would or might be a little lengthened; but the foot would be turned pointing towards the other foot, and could not be turned outward in the least. Both when the head of the bone is on the back of the hip bone, and when in the ischiatic notch the head of the bone can be distinctly felt by the hand. When the head of the thigh bone is dislocated downwards, and rests in the thyroid hole, so called, the trochanter

will be misplaced, and the head of the bone will be felt on the side of the perineum, between the scrotum and anus, and the foot will be turned out. Very great violence done to the parts, and consequent swelling, might render it difficult to ascertain, by feeling, the position of the head of the bone soon after the injury; but when the swelling had subsided, it might be ascertained by the touch. As to the length of time, which may elapse after a bone is dislocated, before it will be impossible to reduce it, it is uncertain, and probably may differ in different cases. But the time that a joint may remain dislocated, and yet admit of being replaced, is longer than has been generally supposed. I reduced a dislocated shoulder that had been out seven weeks, another that had been out nine weeks, and one that had been out four yearly months. I should not think that a hip joint, having been out of place six or even eight weeks, would render it impossible to reduce it. It might even be a more favorable time for the operation, than immediately after the accident, especially if the soft parts at first were much bruised and swollen.

I do not think that the mechanical powers, such as the wheel and axle, or the pullies, are necessary to reduce a dislocated hip, or any other dislocation. They have sometimes been used with effect, but they have oftener been injurious; and what can be effected with them, can be effected without them. It is not the quantum of force which reduces dislocated bones, so much as it is the direction of the force; and this can be given by the hand of skill, better than by pullies, &c. In reducing the hip joint it cannot be done by direct pulling; but we take advantage of the thigh bone as a lever to move the head of the bone from the place where it may be lodged, and bring it into its former situation. In some cases the fulcrum is some of the bones of the pelvis; in others we have to supply it by some external body.

Question by Defendant's attorney. Did you ever reduce a dislocated hip? And if so, please to state the manner.

Answer. I once reduced a dislocated hip joint. It was dislocated upward and backward; and after pulling it in every direction but the right, it was reduced easily by carrying the knee towards the patient's face. I had the assistance of two men only.

Question by the same. Would the distortion of the pelvis, by contraction of the muscles, produce an apparent lowering of the hip joint, or a hollow up the hip?

Answer. It might, and probably would.

Question by the same. If the head of the thigh bone were forced through the bones of the pelvis, would that produce, in any measure, the same effect?

Answer. It would.

Question by the same. Is the dislocation of the hip joint an unusual occurrence? and might a skilful surgeon fail in any attempt to reduce it?

Answer. A dislocation of the hip is very rare ; and probably not one medical man in ten would be able to reduce it.

Question by the same. Would a failure to reduce a dislocated hip subject a man to the just imputation of ignorance in his profession ?

Answer. I should think not, for men of science, and reputed skilful, have failed.

Question by the same. Do you know Dr. I. of Eastport ? And if so, what do you think of him as a man acquainted with his profession ?

Answer. I have been acquainted with Dr. I., and think him above mediocrity in the knowledge of his profession, especially in anatomy.

Question by the same. May not physicians and surgeons disagree in opinion respecting a disease of the hip, without the imputation of ignorance or negligence ?

Answer. Men of science and skill have often disagreed in such cases.

Question by the same. Were the head of the thigh bone lodged in the ischiatic notch in Lowell's case, how would the limb act ? Would it be as when you saw it at Eastport ?

Answer. When the head of the bone is lodged in the ischiatic notch, the foot would be turned inward, which was not the case with Lowell when I saw him.

Question by the same. What is the situation of the ischiatic notch in the living subject ? And is it filled or partially so, with any substance ?

Answer. In the living subject the ischiatic notch is filled with a firm strong ligament, which is again covered with muscles, so that the head of the bone could not sink much into it.

Question by plaintiff's counsel. When you were at Eastport, before you examined Charles Lowell, and while you were at some distance from him, did you say to any one, that Lowell's hip was not dislocated, or to that purport, and if so, to whom did you make the observation ?

Answer. I do not recollect that I did, and am very confident that I did not.

Question by the same. Did you tell Lowell he had better drop his action and try to get well, which would be better than to try to get damages of the Doctors ?

Answer. I think I did.

Question by the same. How long did you take to examine Lowell's hip joint, and did you attempt in any manner to restore it to its proper place and appearance ?

Answer. I did not measure the time, but put him in various positions, and examined him in company with Dr. B. till I was satisfied it was not out of joint. I did not make any attempt to replace the bone.

Question by the same. What did you prescribe for the remedy of his limb, and what encouragement did you give him?

Answer. I believe I advised him to make an issue on his hip, and keep it open a long time.

Question by the same. Did you tell him he would probably be a well man in a year, if he followed your prescription, or to that effect, and did you give it to him in writing?

Answer. I think it probable that I gave him encouragement that he might get well, or better than he was then; but do not recollect whether I gave him a written prescription or not.

Question by the same. Had you heard Dr. P's. representation of Lowell's case before you saw Lowell?

Answer. I had.

Question by the same. If there was a distortion of the pelvis so as to occasion the appearance of Lowell's limb, would it not have occasioned pain at or near the back bone?

Answer. I do not know that it would. In cases of disease of the hip joint, where the pelvis is distorted, the patient does not complain of pain in the back to my recollection.

Question by the same. If there were a dislocation of the head of the bone into what is called the ischiatic notch, would it not occasion the same appearance that Lowell's exhibited?

Answer. I think not.

Question by the same. How do you account for the hollow appearance in Lowell's hip, at the place where the head of the thigh bone was inserted, and did you feel it to be hollow when you examined it?

Answer. I did not perceive any more hollow on the hip joint, than might be accounted for from the effect of the muscles, or a fracture of the pelvis.

Deposition B.

I, — B—, of St. Andrews, in the Province of New-Brunswick, Physician, of lawful age, on oath, do testify and say, that I was this day (June 13th, 1822) present at an examination of Charles Lowell of Lubec, for a disease or affection of the left hip joint, and am opinion that it does not arise from dislocation at present existing, but from affection of the muscles, or some other cause.

Question by Plaintiff. Did you ever reduce and set a thigh bone which had been dislocated from its socket by a downward luxation?

Answer. I never did.

Deposition C.

Dr. C. was introduced as a witness by the defendants, and was requested to explain to the jury the structure of the different parts of the subject, and to exhibit the varieties of dislocation by the bones of the skeleton (viz. the pelvis and thigh bone) which were produced for that purpose. This mode of proceeding was objected to by the plaintiff's counsel; who proposed, in that case, to offer the plaintiff himself to the personal inspection of the jury. No opposition being made to the course by the defendants' counsel, the plaintiff was submitted to the examination of several of the jurors. Dr. C. exhibited the manner in which several dislocations took place; viz. two forward, one of which were upward and one downward, and two backward, both upward. He indicated the position of the ischiatic notch. In dislocation into that notch, he testified, that the knee and toe turn in. It was impossible for the knee to turn outwards in a dislocation into the ischiatic notch. The plaintiff's knee and foot are canted a little outward. Sir Astley Cooper was considered the greatest authority in surgery. The witness thought the plaintiff's injury was a fracture and derangement of the pelvis. The ischium might have been broken, and some tuberosity forced and felt about the notch. From the nature of this testimony, it is not capable of being perfectly reported. He testified to the respectable standing of Dr. I. in his profession.

Deposition D.

Dr. D. concurred in the opinion of Dr. C. and confirmed the general points of his testimony. It was an injury to the bones of the pelvis. A surgeon could be no benefit to Lowell. He testified also to the respectability of Dr. I.

Appendix E.

Concluding Address of the Attorney for the Defendant.

Let not a judgment against the defendant be thought light. The end of this action is to annihilate the character and usefulness of the defendant; and such, undoubtedly, Dr. I. feels the attack with a sensibility proportionate to the injury aimed. His standing and reputation, therefore, form a trust, which he feels it a duty to defend for the benefit of the rising and thriving community, which comprises his present sphere of practice; and also as the principal means he has, in connexion with the little prospect of fortune it affords, under Providence, of executing the humble scheme of happiness and improvement he has in contemplation for himself, for his family, and society. Of all this the verdict outrageously sought by the plaintiff, would simply rob him for ever. The consequences extend therefore to the community, which is hardly less interested in the result; and what is the consequence of a limb like Lowell's, supposing he should never perfectly recover it, compared with the usefulness of such a physician as Dr. I. entirely lost to the present scene of his practice? Is there a member of the profession in this section of the country, that any individual who has witnessed the full exposition of this case, in case of any accident happening to himself upon this spot, requiring the aid of a surgeon, would select in preference to this defendant? And is there any portion of the state, that would not rejoice to receive the benefit of his skill, if it should be expelled from the county of Washington? Rise, then, above the influence of prejudice, and restore him to a society, which is capable of appreciating his expertness and fidelity; and inspire him with a due confidence in the justice of his fellow citizens to protect him against such an unprovoked and unfounded assault upon his rights, his feelings, and his practice. Sustain him against this fiery trial of his patience, and bring him out of the furnace without allowing a hair of his head to be harmed. A verdict against him would be his ruin. Call a soldier a coward, a clergyman a hypocrite—and judge what it is for a physician to be branded as a quack. Compared with his character, a treasure so deservedly endeared to him by the unrighteous manner in which it has been assailed, he values not his property a feather. If the jury arrive at the question of damages, he does not request them to trouble themselves about fractions. He does not entreat your mercy; he makes no claim for commiseration; and will not thank you for forbearance. By his express instructions his counsel are not only warranted, but required to urge upon you not to compromise his character by a verdict for mere nominal damages. If you are obliged by your oaths to find a verdict for the plaintiff, he does not ask of you to stint them. Give him the whole

length of the lash—Give to the plaintiff, in that case, his just measure, heaping full, and running over. Take from the defendant, if you please, the pittance of his humane and patient industry ; and take with it all further incentive to emulation and exertion ; blast that reputation, which is the fair growth of a brief and honorable practice ; steep him in poverty to the very lips ; let him exhaust the cup you shall mingle for him to the very dregs ; bring down upon him the whole weight of the Harvard Medical Faculty, piled upon the Massachusetts General Hospital ; let the Chaldæans come upon him, and the Sabæans make three bands ; and the wind from the wilderness smite upon the four corners of his house, until he shall be reduced to sit down among the ashes and scrape himself with a potsherd—nothing can deprive him of the consciousness of integrity, derived from the consolation of having performed his duty.

Appendix F.

The feelings experienced by the unfortunate Plaintiff, and the views he entertained, are expressed in the following conclusion of his Pamphlet.

The amount of this interesting subject, appears to be this : viz. That I, in the prime of life, with a simple dislocation of the hip, fell into the hands of Doctor I. and Doctor K. by whose ignorance and negligence, I have lost the use of my hip for life ; that after suffering five excruciating operations, and expending about 1000 dollars in doctors' bills, nurses' bills, &c., and with a total loss of two years' time, and 1000 dollars more in an appeal to my country for redress ; I have lost a just and plain cause, and that too, by the improper management of the Court, and the corrupt influence of a combination of unprincipled men, from various parts of the county of Washington.

I have now told my plain and unvarnished tale of woe, and when my readers arrive at this point, I trust they will be prepared to say, that I have unfolded to them a scene of injustice and oppression, which has few examples in the history of this country, and such as ought not to be passed over in silence by the government and people of this independent state. This cause is of no common interest to society, or the parties engaged ; for every good citizen must feel a deep interest in arresting the progress of imposture and quackery. It is one of peculiar bearing on the vital interests of many, for it strikes at the very root of *fraud and deception* in every profession ; and although I am a ruined man, and life has few charms remaining for me ; although I have been extremely unfortunate in the unexpected result of this suit ; there are no two acts of my life, on which I can reflect with more heart-felt approbation, than the prosecution of I.

and K., and the publication of this pamphlet ; and through subsequent life, I shall look back with the proud satisfaction of having been a public benefactor, in exposing these Doctors and the Judge's charge to the world.

Although I am satisfied, that this work is founded on the immutable basis of truth and justice ; and that it is couched in decorous and appropriate, though strong terms ; yet I have no doubt it will be assailed by some one of the numerous host of quacks, pettyfoggers, and gamblers, with whose base influence I have had to contend during this protracted litigation ; but unless they do it in an ingenuous manner, and in their own proper names, I shall treat them with that silent contempt, which such communications deserve.

* * * * *

Although the loss of my property, and the treatment I have received, the loss of the use of my hip, and the pains and sufferings which I am doomed to endure through the round of time ; the recollection of past enjoyments, together with other misfortunes (not interesting to the public) do at times all rush upon my mind with a weight and impetuosity, beyond the power of human efforts alone to sustain. Yet, amidst all these calamities ; amidst the clouds of darkness and doubt, injustice and oppression, I can look forward and see the glimmerings of the sun, which seem to indicate the approach of better days. There I can behold the most profound and consummate wisdom, guiding the destinies of men ; and I feel a consciousness, that the Divine blessing on the purity of intention, and the energy and perseverance which have characterized my hitherto rapid, but unsuccessful career in life, will yet support and conduct me through the labyrinth of life's thorny maze, to the peaceful shores of eternal blessedness, "where the wicked cease from troubling, and where the weary are for ever at rest."

CHARLES LOWELL.*

Machias, January, 1, 1825.

* Since the greater part of these sheets were printed, I have seen Mr. Lowell, the plaintiff, for the first time, since I gave the deposition. His anticipations of evil had, I found, been realized to their full extent. His health had been gradually impaired by the change of habits produced by his lameness, and his spirits broken by repeated misfortune.

To those who feel an interest, as I have no doubt many persons will, for this unfortunate man, it may seem that I ought to have defended his cause, and shown the real character of the treatment he had received. This, however, could not be done without exhibiting the conduct of others in an unfavourable light ; and I have been desirous to avoid this, any further than was called for by self-defence.

Appendix Z.

SOME of those who are not fully acquainted with the nature and extent of the attacks made on me, will, I am aware, be disposed to question the expediency of bestowing the attention to the subject, I have done; and perhaps they may also justly doubt the propriety of involving, in this discussion, the opinions of respectable gentlemen, in and out of the medical profession, though I have omitted their names; and notwithstanding the reasons assigned in the beginning of this pamphlet.

For the satisfaction of those who may not have seen, in the attacks of the defendants' attorney, sufficient reason to justify the course I have taken, I will make an extract or two from a series of publications which appeared in newspapers printed at Eastport, the town where the defendant lives. Whether they were written in any part by the defendant, I know not. They are published in the place where he resides, and it is obvious that some of the facts must have been derived from himself.

This series is begun, by republishing a review from the Boston Medical Intelligencer, which these writers think proper to attribute to me or my friends, because it contains some complimentary remarks, although it has also opinions diametrically opposite to those expressed by me, and in every feature bears a character which distinctly marks it as not emanating from me. Of the succeeding numbers, the following may serve as specimens.

Extracts from the Eastport Centinel of December 10, 1825.*

“Mr. FOLSOM,

“A correspondent of your paper, a short time since, made some remarks on an article in the “Boston Medical Intelligencer,” purporting to be a Review of the Trial of Lowell vs. Doctors I. and K. which has made no little stir in the medical world, and, before it is

* These productions were, it should seem, printed for a more extensive distribution, than the ordinary circulation of the paper. Many copies were sent me, mostly by anonymous friends, and a considerable part of them I found to be printed with one blank side of the newspaper, additional copies of this series being struck off for a more enlarged diffusion of their contents, and, as I have since learned, distributed by the defendant. I might add, that I have received from Maine, through the post-office, anonymous writings of an abusive character, probably the production of medical students, who had been deceived as to my opinions and dispositions, by the pamphlet of the attorney, and the newspaper publications. They afford additional proof of the disadvantages resulting from publications of the description of the report of this trial; since its allusions and insinuations seem to encourage and support those, who are ready to improve any opportunity to attack the reputation of others.

suffered to remain in quiet, I am rather apprehensive will make still more.

“By publishing the following remarks, with the extract from the ‘Review,’ you will confer on me and others a particular favor.

“Dr. I. will not contend with Dr. Warren that it is impossible the head of Lowell’s os. femoris is in the axilla, but to him it is unaccountable that any man of the least pretensions to anatomical knowledge should think it in the ischiatic notch.

“When Dr. I. was first called to Lowell, his injured limb stood off from the other at an angle of about 40 degrees; a tumor was seen, and the head of the femur was felt by Dr. I. over the foramen ovale, the trochanter major of course displaced. When Dr. I. left him, the direction of the whole limb was natural, its motion (see Coffin’s deposition) free, its length corresponding with the other, and the trochanter major to be felt in its natural position. Dr. I. judged Lowell’s case to be, when he was called to him, a dislocation into the foramen ovale, accompanied with a fracture of the acetabulum, and after he had operated upon him, that he had reduced it. Dr. Warren saw Lowell some months afterwards, and judged that it was originally a dislocation into the ischiatic notch, and that it never had been reduced. His cogent reasons for his belief are to be found in his depositions published in the Report of the Trial.

“A correspondent of the Boston Patriot complains most bitterly of the medical aristocracy now existing, and says, ‘a reform is most devoutly desired.’ I think, if it was not wished for by a liberal minded individual, that the public good demands it in a most peremptory manner. ‘The truth, and the whole truth ought to come out.’ On the one hand, if Dr. I. is not fully competent to discharge the duties which belong only to the accomplished physician and surgeon, it ought to be fully developed, as he is believed, by those who are the best acquainted with him, to possess a high degree of excellence as a medical man, and let them be no longer deceived. On the other hand, if J. C. Warren should be found not worthy of the high degree of confidence that has been placed in him, in consequence of the nakedness of his mind, I think that he must take a high rank among that detestable class of men who pretend to much, and know but little. If Lowell’s case was a plain one, a case not to be mistaken by medical men of high standing, and if medical books are so clear and explicit on the subject, that the way-faring man could not err therein; and if no medical authority extant intimates that the knee and limb of one side being thrown off from the other in an awkward and unnatural manner, is an indication that the head of the thigh bone thus thrown off is lodged in the ischiatic notch; and if no man of common sense ever dreamt of the impossibility, I do think the prospects of invalids, when they become inmates of the Massachusetts General Hospital, to be the most deplorable of any situation that I can imagine.”

“The circumstance of their volunteering their depositions, as they certainly did, to Lowell; for every man knows that they were not

compelled by law to do it, as they lived out of the State in which the action was brought; and the tenor of their depositions, as it must appear to every dispassionate reader, throws the lie in the reviewer's face. It would seem, that they believed a verdict in Lowell's favor (regardless of equity towards the defendants), would prove that they did not see through glasses darkly; would prove, in fact, an impossibility, and thereby save *their* reputation.'

Such are the remarks which the defendant or his friends, have felt justified in publishing. What I have quoted is by no means the most abusive part of their productions; but there being no great choice, I have taken the above at a venture, as a specimen of the rest.

That the defendant should have felt some irritation at the inconvenience he had experienced in consequence of the opinion formed by me, is perfectly natural. But a moderate degree of good feeling would have led him to restrain such publications, when he well knew from the tenor of my letter, from the four cross interrogatories, 15, 16, 17, 18, as well as from various concomitant circumstances, that I had every disposition to prevent his suffering, and that nothing would have led me, knowingly, to say what might be employed against him, but obedience to the laws of the country.

The writer of the paragraph, quoted last, boldly asserts, that we volunteered our depositions, and that we were not compelled to give them by law, because we lived in a different state. A person who undertakes to assail the character of others, with so little reserve as he has done, ought to have more knowledge of the facts of which he speaks. It is well known, that citizens of the United States are compelled to give testimony in causes between citizens of different states; or become liable for all damages. How else could justice be administered in the national courts?

So far from volunteering my testimony, I positively refused it, till I found the law of the land could compel me to give it; and then, as I have more than once repeated, I gave it most reluctantly.

There is but one other part of this incongruous mass of assertion and insinuation, which I shall notice. "When Dr. ——" say these newspaper writers, "was first called to Lowell, his injured limb stood off from the other at about an angle of 40 degrees," &c.

From this and what follows it appears, that the defendant has abandoned the cause of the deponent *A*, who says, "that from the nature of the injury described to me by Lowell, it could hardly be possible that the hip *should be dislocated*. A fall on the back, with the weight of the horse upon it, would be likely to break the bones of the pelvis, and might drive the head of the bone through the bottom of the socket, but *could not dislocate* the joint." (See deposition *A*.)

When it is considered, that but for the difference of opinion from us, expressed by the deponent *A*, the defendant would probably have lost his cause, it appears very ungrateful in him to abandon, and even to attack, or allow to be attacked, the opinion, and thus indirectly the character of so important an auxiliary.

Further, in regard to the conduct of the deponent in the surgical management of the case, which is spoken of in these newspapers, I have always wished to avoid giving any opinion. I therefore never charged him with any malpractice, or with a want of as much knowledge, as should be reasonably claimed for him; nor do I now. I wish only to defend my own ground. But in the first part of the production quoted, the writer has contrived to connect the opinion of the defendant with mine in such a manner, as calls for some remark. After informing us, that the defendant considered the case of Lowell as a dislocation in the foramen ovale before he reduced it, he has made me to say, that it was *originally* a dislocation in the ischiatic notch. This is not the fact. I expressly declined giving an opinion, as to what took place at the period of the accident, and spoke only of what I saw at the time I examined the patient. There is not the least intimation of its having been originally an ischiatic dislocation.

The writer of this statement, which, as I have said, is repeated elsewhere in his productions, appears by no means to have improved the position of the defendant. It seems, from his story, that before any effort was made at reduction, the defendant was perfectly aware of the existence, and the character of this accident. The limb, he says, stood off at an angle of 40 degrees.

Attempts were made to reduce it, according to the deposition of Coffin, which is introduced by this writer as favorable to the defendant, and which, for this reason, I have reprinted. The direction of the limb, after these attempts, was changed, and "both legs were of a length, so far as I saw, and the limb was more easily moved."*

Yet the same Coffin informs us that he was present at a period from twelve to fourteen days after the injury, when, the defendant being there, "Lowell asked the reason of the hollow at the outside of the hip, and expressed his fears that the bone was out of place." Nothing was done with a view to replace it. In about two and a half months after, he was examined by me, and the bone was found dislocated; the existence of which, I suppose, to be shown by a stronger body of evidence than any adduced by this newspaper writer in support of what he has advanced. Considering, then, the condition in which the limb now is, together with the statement made by him, does not this author involve the person he defends among the following alternatives?

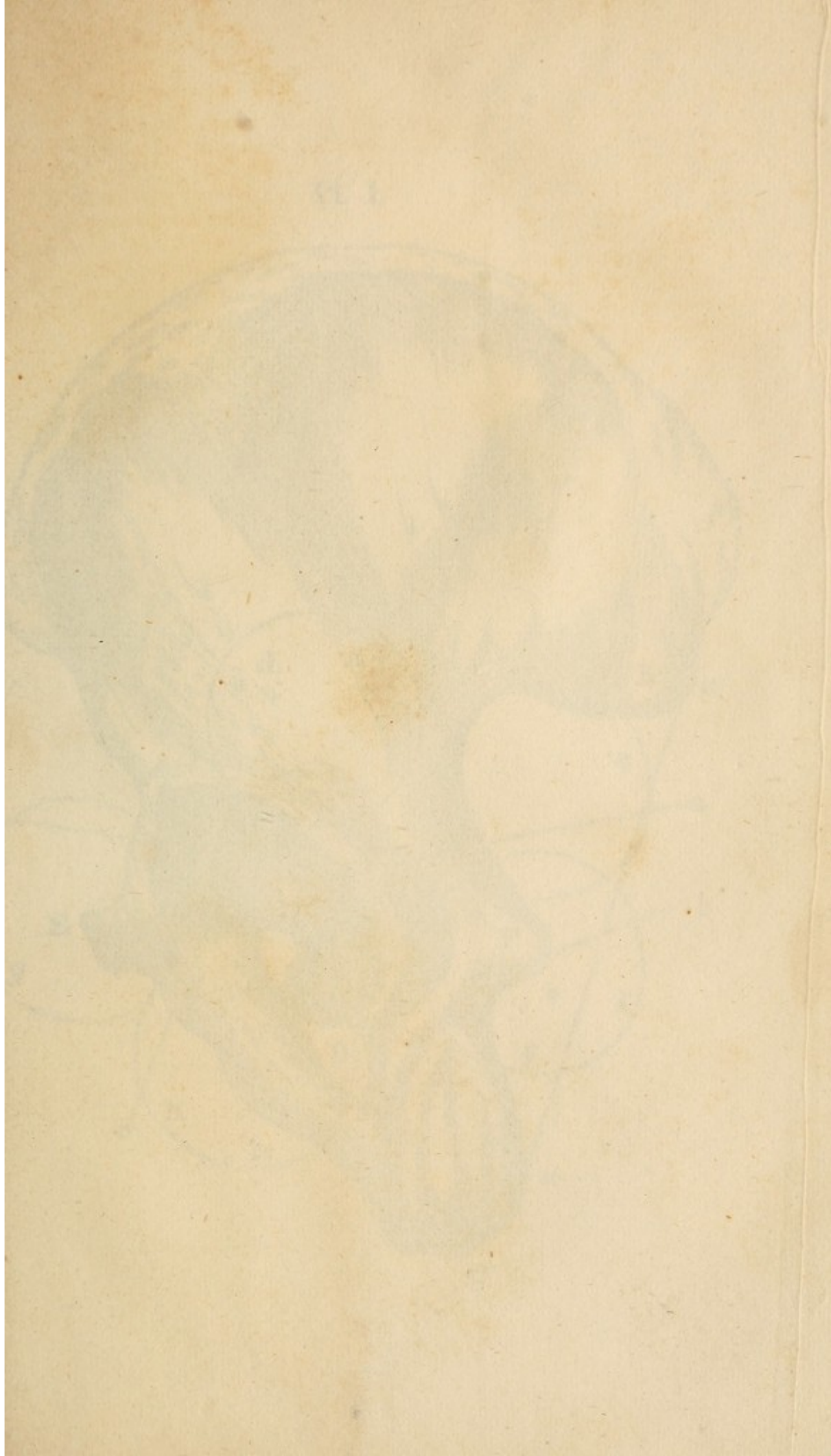
First, that by the attempt made for reduction, the bone was actually reduced; yet, when it afterwards got out of place *in a fit*, or in some other strange way, the defendant, though seeing the disordered state of the limb, made no attempt to restore it to its place.

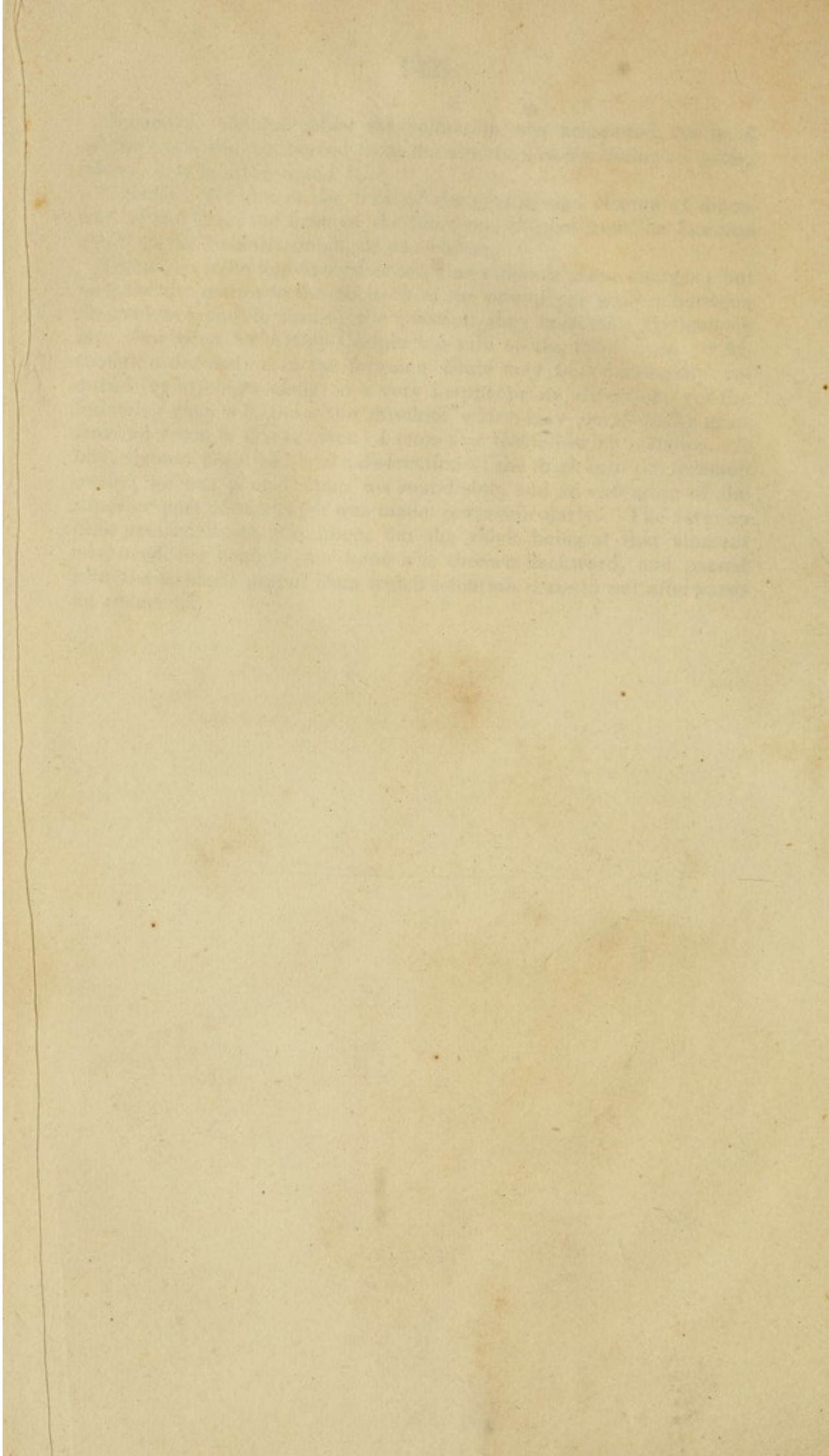
* Writers on dislocation state, that, immediately after the accident, and especially after attempts made to reduce it, the limb appears more flexible than might be expected, or than it is ever after. This fact should be a caution to young practitioners, not to be satisfied too easily with having effected the replacement.

Secondly. Or that when the reduction was attempted, the head of the bone was not moved from the situation in the foramen ovale, where, it is said, he found it.

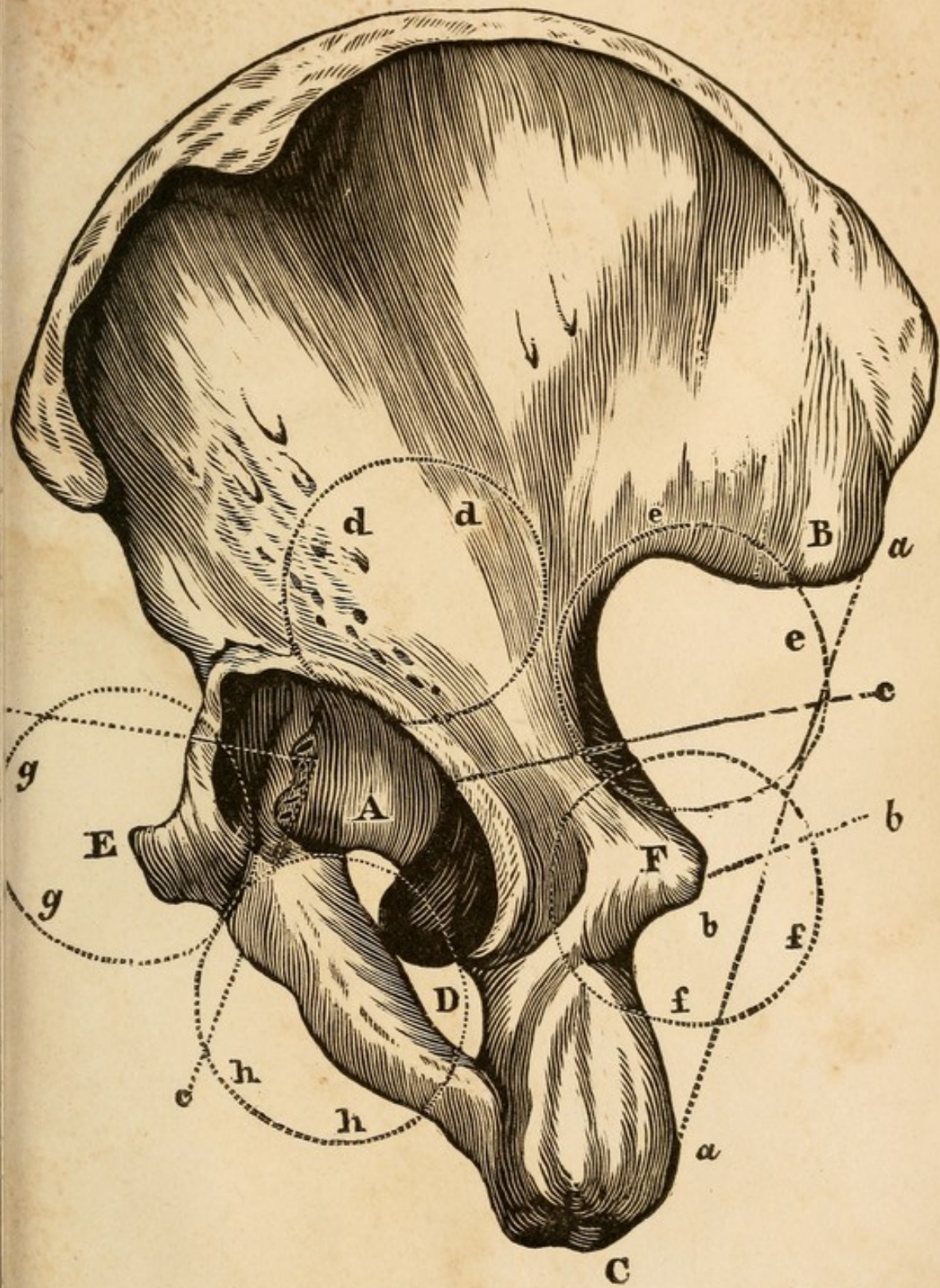
Thirdly. Or that at the time of the grating and change of direction of the limb, the head of the bone was slipped from the foramen ovale to the ischiatic notch, or os ischium.

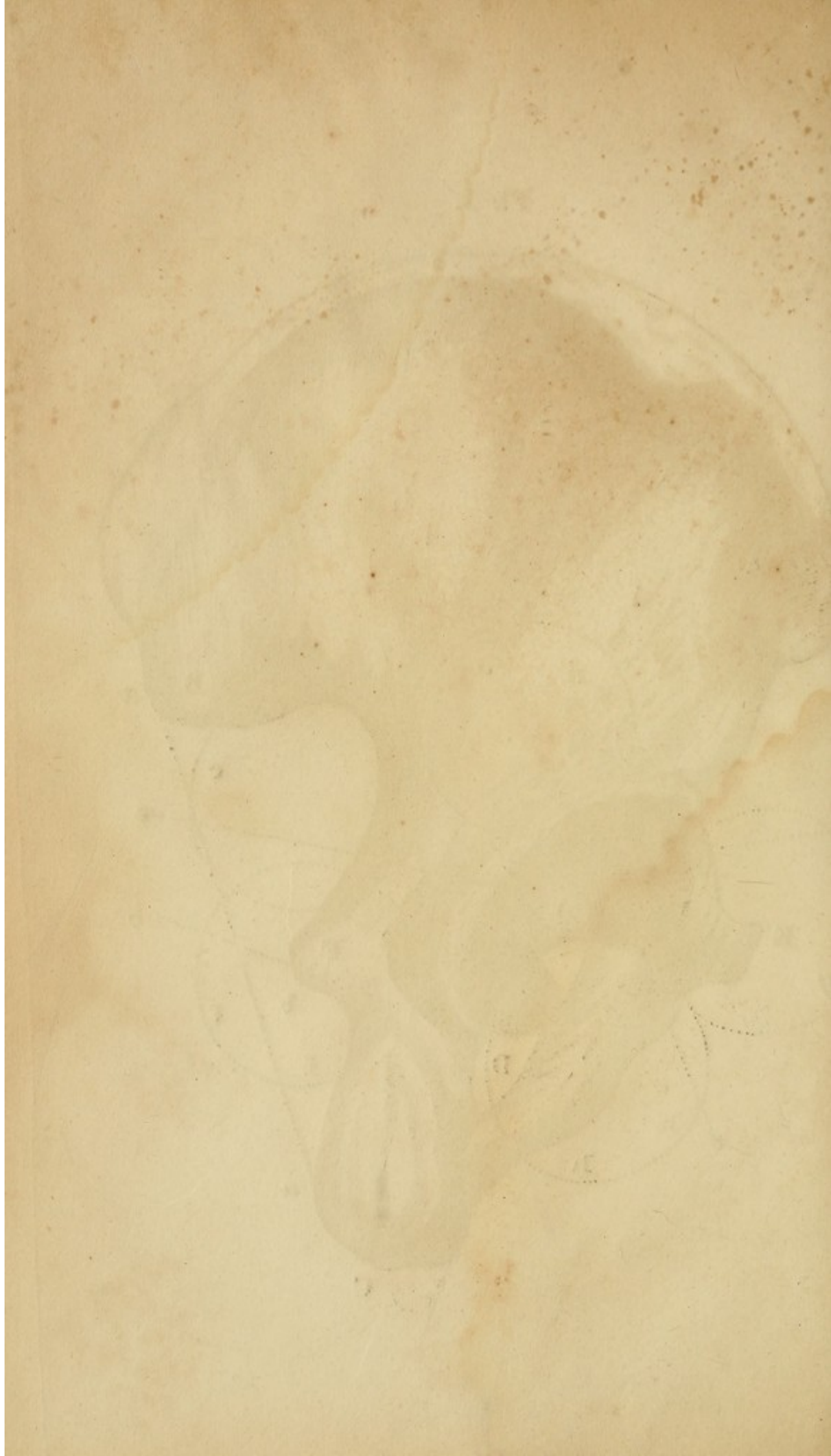
I wish not to be understood as bringing either of these charges; but to leave the matter to the decision of the newspaper writers between themselves; and, in settling the question, they must take particularly into view what Sir Astley Cooper has said on the third case. "Although a dislocation in the foramen ovale may be occasionally reduced by attempts made in a very inappropriate direction, yet the following case will show the mischief which may occasionally arise from an error in this respect. I once saw the following instance. A boy, sixteen years old, had a dislocation of the thigh into the foramen ovale; he was placed upon his sound side, and an extension of the superior part of the thigh was made perpendicularly. The surgeon then pressed down the knee, but the thigh being at that moment advanced, the head of the bone was thrown backward, and passed into the ischiatic notch, from which situation it could not afterwards be reduced."





Pl. I.



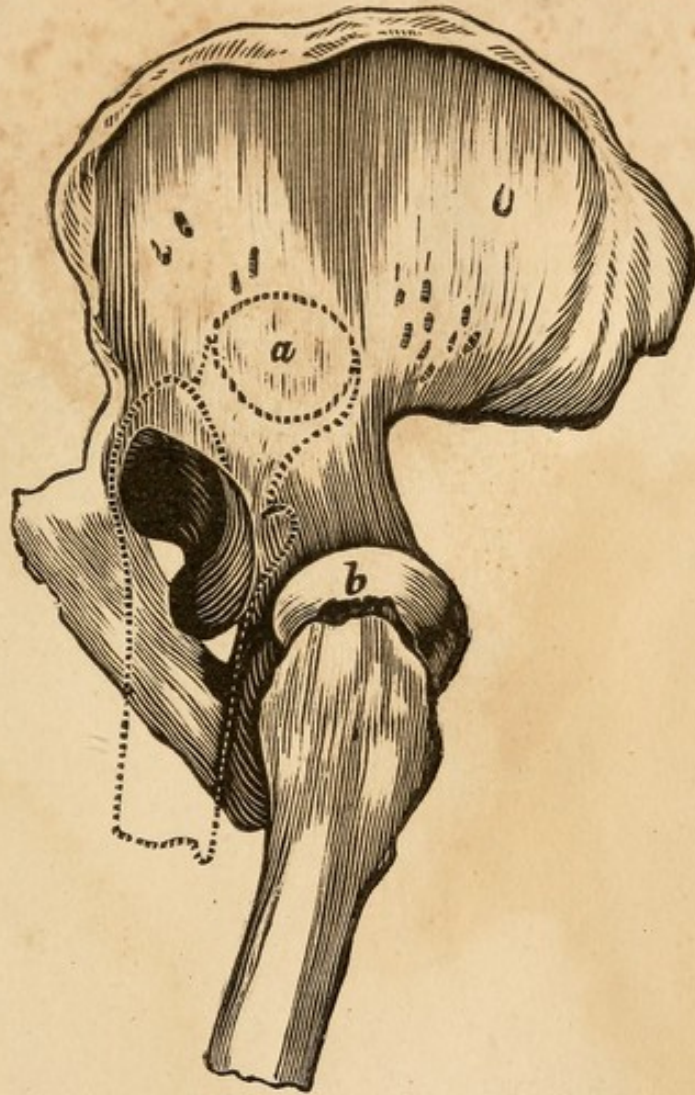




Pl. II.



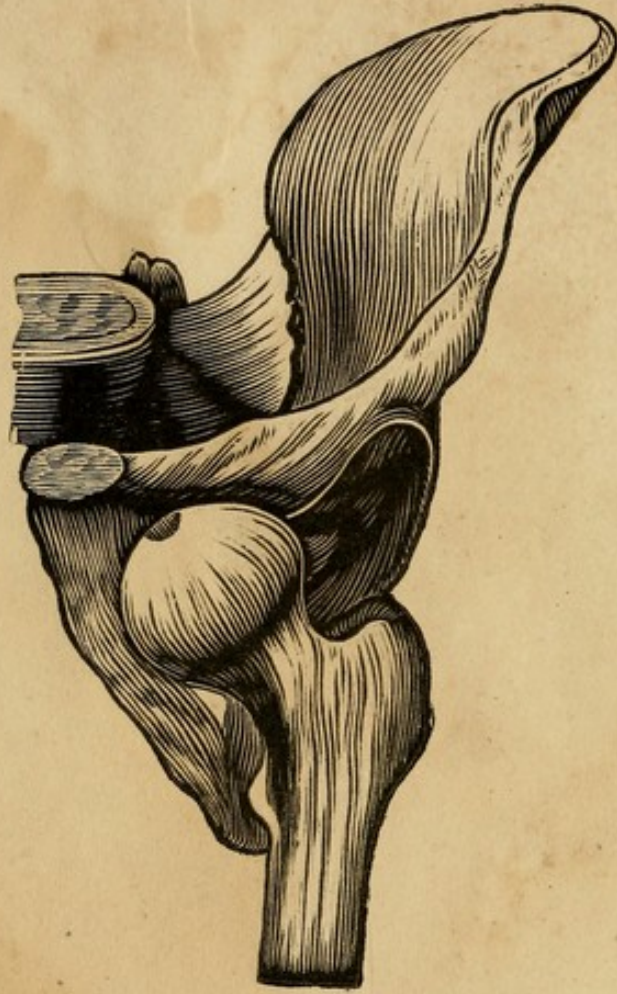
Pl. III.







Pl. V.



Pl. IV.

