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## President of the Ulster Medical Society 1914–15

**Presidential Opening Address**
Ulster Medical Society
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DISEASE IN ITS MEDICO-LEGAL
RELATION TO ACCIDENT.

MR. EX-PRESIDENT AND FELLOW-MEMBERS OF THE ULSTER MEDICAL SOCIETY – Allow me to thank you all most gratefully for the cordiality of your welcome to-night, and Mr. Mitchell especially for the far too kindly and flattering terms in which he has referred to me.

I realize to the full the great honour you have done me in electing me to the presidential chair of a society such as this, which has been in existence for over half a century, and which can point to a long line of honoured names on its presidential roll. I accept the responsibility which devolves upon me, relying, as I know I can, upon the cordial cooperation of the very capable office-bearers of the Society and of the members in general.

We have to deplore the removal by death during the past session of a former President, a former Vice-President, and a very old member of our Society.

Dr. Henry O'Neill joined the Society in 1877, and was President in 1891-92. For over a quarter of a century he was an outstanding figure in our profession for his wonderful versatility and amazing energy. As a member of the City Corporation his work in Public Health concerns was of the greatest value to the community and constitutes a lasting memorial to a life of remarkable industry and achievement.

Dr. John Gorman, of Bangor, joined our Society in 1896, and later held the office of Vice-President. He was a busy and up-to date practitioner in Bangor and the surrounding district, and was a frequent attender at our meetings, in which he took an active part.

Dr. James C. Ferguson, whose loss we also deplore, was a member of our Society since 1888. He was one of the City Poor Law Medical Officers, and a high type of the hard-working and unassuming general practitioner.

We enter upon our present session in the third month of the life and death struggle which is being waged by the British Empire and her Allies against the world-menace of Prussian militarism, arrogant and

overweening.

Our profession all over the Empire has responded nobly to the call to arms. Numbers of our old fellow-students, some of our own members, and the sons of our members, have gone to bear their share in the contest. Our hearts and sympathies are with them wherever they are, and whatever trials they may be enduring in the cause for which it is their glorious privilege to struggle – that of the Motherland and of Right.

It devolves on us at home during the ebb and flow of the strife abroad to strengthen the hands of those in authority by our personal effort and personal example in the discharge of the many home duties that have arisen from the war, and I feel confident that the members of this Society can be relied upon to bear their part.

Ladies and Gentlemen – In turning over in my mind subjects suitable for a presidential address it occurred to me that while last year's presidential address, on the Surgical Aspect of Incapacity following Injury was fresh in your recollection, I might with advantage endeavour to present to you the subject of Disease in its relation to Accident, and

more especially in its Medico-Legal relation.

I have been interested in the subject for a considerable number of years, as it has been constantly cropping up in my work as medical referee to various insurance companies and to some of our large industrial concerns and carrying companies.

The subject is of wide interest to all classes of practitioners of medicine, whether engaged in general practice or as specialists; we are liable to be confronted with its problems at all stages of our working career.

The subject is a wide one, and cannot be adequately treated within the limits of a presidential address, but I shall endeavour to refer to some, at least, of its features of interest to us all.

The word "Accident" is used here in its widest sense, for in speaking of an accident as a cause of personal injury one includes "any mishap or untoward event which is not expected or designed," whether it be caused by the negligence of another person or not. An accident in this sense may produce litigation on any one of four grounds

(1) An insurance policy.
(2) Negligence (under which is included assault, etc., but contract is excluded).
(3) Breach of contract.
(4) The Workmen's Compensation Act, 1906, and its Schedules of Industrial Diseases.

(1) An Insurance Policy. – In these cases whether the event upon which proceedings have been instituted is held to be an accident or not depends to a great extent upon the construction of the words used in the particular policy. (N.B. – We should all read carefully the phrasing of the policies we ourselves take out).

(2) Negligence. – Here the *ground* of the action is not accident but the *negligence* of the defendant or of some person for whom he is responsible.

(3) Breach of Contract. – This, whether express or implied, written or oral, may give rise to an action for damages for personal injuries.

The effects of breach of contract by one party thereto may be either personal injury, disease or death of the other, or of a third party whose injury causes damage to one of the contracting parties. For example, if a man purchase food under a contract with an implied condition as to its fitness and it makes him ill, he has a right of action for damages; but if, as a master of a house, he contracts with a tradesman to supply him with sound food for the use of his household and the food in question is unsound so that a wife or servant falls ill, and in consequence of that illness the master is deprived of their services, the breach of contract gives him a right of action for damages the measure of which is the loss to which he has been put by the illness (for instance, where typhoid fever has been caused in a household from infected milk).

(4) The Workmen's Compensation Act. – A successful claim to be made under this Act must be based upon a personal injury by *accident* which must have *arisen out of and in the course of the employment*. In a large manufacturing town, such as ours, cases are continually arising under this Act.

A word as to the Consequences of Accident.

The person legally responsible for personal injury to another may be held liable for all the consequences of the cause producing injury or traceable to it, and the consequences so arising may go on increasing until, by a final judgment or award, a limit is put to the liability. No defence is available in the fact that an utterly trivial injury has produced results, the serious nature of which is out of all proportion to the force which inflicted it, provided that such results are the natural and reasonable consequences of the injury, having regard to all the facts existing at the time. For example, it may be no defence that the ultimate result is due to the aggravation of an old disease in existence before the injury, or that the consequences would have been less serious but for the weak health or condition of the injured person.

Dealing first with the Insurance Policy group, the medical man is sometimes confronted with puzzling cases, notably in Accident Insurance policies. Here I may remark that a policy of insurance against death always presents the same legal position; the exact words of the policy are all-important. Death from certain causes – *e.g.*, disease – may be excluded by express terms, and the policy may be restricted to cases of death due "solely to external, violent, accidental and visible means," and there is generally a clause whereby suicide relieves the Company from responsibility.

To take an Accident Insurance case: – Some years ago a business man in this city was coming down a ladder at his works; he missed his foot when within a few rungs from the ground, straining himself in so doing: he was seized with violent abdominal pain, was taken home, and treated by his medical man (a homoepathic practitioner). When a surgeon was called in two days later the gentleman was so gravely collapsed that the surgeon declined to operate, and the patient died a few hours later. The practitioner certified the death as "intussusception," and the Accident Insurance Company, with whom the deceased was insured, were notified that a £2,000

claim would be made on the grounds that the fall from the ladder had caused the intussusception.

I was instructed by the Company to make a postmortem examination, which I did in the presence of the doctor and the surgeon. We found that the cause of death was an acute internal hernia, three feet of the small intestine having slipped through an old-standing opening in the meso-caecum and becoming strangulated and gangrenous. The members of the deceased's family admitted, on enquiry, that for years he had been subject to attacks of acute abdominal pain, and was always able to relieve himself of these attacks by leaning over the back of a chair; and the doctor stated that he had been aware of the occurrence of these attacks. In filling up his proposal form to the Insurance Company the gentleman had made no mention of these attacks. The case was settled by the payment, on behalf of the Insurance Company, of a much smaller amount than they would have had to pay had the post-mortem not been held.

Another Life Insurance policy case is of interest: – A gentleman was found dead on the railway line at one of our suburban stations: he had been struck by a passing train when crossing the line at night, after having alighted from another train. The Insurance Company with whom he was heavily insured raised the plea of suicide, and contested payment. I had occasionally seen him professionally, and kept notes of his case, and another medical man and myself were in the position of being able to depose to the fact that he had latterly been suffering from severe attacks of vertigo (due, in our opinion, to arterio-sclerosis). So a satisfactory settlement was arrived at, on the fair enough assumption that one of these attacks of vertigo accounted for the accident. At the time the gentleman made his proposal for assurance, some years prior to his decease, he was not suffering, nor had he ever been known to suffer, from vertiginous attacks of any kind, and he had been able to answer in the negative the customary query at his medical examination, as to whether he had ever suffered from "giddiness or fits of any kind."

Negligence. – Like insurance policy cases, this comes under common law, and includes the frequent cases of railway and shipping mishaps. I shall deal with an instance of the latter. Many of you will remember the shipping disaster in Belfast Lough, one Saturday afternoon, about thirteen or fourteen years ago, when two of Messrs. G. & J. Burns' steamers, each crowded with passengers (the week being Glasgow Fair week), collided opposite Whitehouse in a fog. There were many injuries and several fatalities, but the vessels, in their disabled condition, made all speed for the quay at Belfast, and huge numbers of the injured were treated at the old Royal Hospital in Frederick Street.

In my capacity of medical referee for Burns' firm, I had to set to work to investigate the numerous claims which followed. Many of them were genuine, many were far from it, and some of them were, to say the least of it, interesting. I shall make no reference to the ordinary class of claims, but I am constrained to mention one remarkable group. Quite a number of the female passengers claimed for "loss of expectation of motherhood," that is to say, that the shock, brought about by the collision due to the negligent navigation of the ships on which they were passengers, had caused miscarriages, these ladies being at the time in an interesting condition. Now you will agree with me that it is sometimes exceedingly difficult, even for the very elect in our ranks to say, particularly at an early stage, whether pregnancy exists or not. Every one of the claimants contended that she had missed one, or at most two periods. It did not make matters easier for me when I mention that a great number of the injured passengers, or to be more exact, of the passengers making claims for injury, had, acting on the advice of their very shrewd solicitors (who had flocked to the Quay and Hospital immediately the news got abroad, and into whose hands these passengers had confided their interests), returned to the various country towns and villages in the North of Ireland which they had been visiting, and were domiciled there pending the settlement of their claims.

I had to seek them out in these remote places, and examine them in conjunction with the local doctor – in those cases where he was in attendance. Now, referring more particularly to these miscarriage claims, I was forced to come to the conclusion that there was, perhaps, one genuine case – a two months' miscarriage – in the whole batch, and she was doubtful, for the doctor, in the little village in Tyrone to which I had to track her, had only been called in when all was over, and, as he put it, there was nothing for him to see. The other miscarriage claimants I found to be either dear women long, long past the menopause, or else ladies who, though married for a lengthy term of years, had not hitherto laid the flattering unction to their souls that they were about to start families. However, to a woman, they flourished their marriage lines at me, and what could I do, being a chivalrous man, but accept their statements, and make the best terms I could for the Company with them, not forgetting, I hope, the

medical man, where they had one – (the solicitors looked after themselves, and did it right royally).

One interesting claim illustrated the converse of the previous proposition – a lady maintained, and apparently in good faith, that the shock of the collision had brought about suppression of her periods, and had caused an abdominal tumour. She was a buxom damsel of twenty-eight, and had no marriage lines to shew. Examination undoubtedly revealed an abdominal tumour, but it was a physiological one, with a loud ticking foetal heart, audible later on. I had to exhort her to seek a parent for the progeny that was coming (which I am glad to say she did), and I got her some money from the Company to help her in starting housekeeping.

I have mentioned these cases, fantastic though they are, with the simple object of pointing out that one has to be prepared for any class of allegation in connection with claims after accidents of this sort.

Under this heading of "negligence," resulting in disease, we may occasionally find ourselves coming into touch with cases such as the following: – A man goes to a dentist for the extraction of teeth; a portion of a tooth drops into the larynx, and eventually the patient comes under your care for an abscess of the lung. Or it has happened occasionally that the fine needle-like instrument, used for drilling a tooth, has become detached, or breaks off, drops into the larynx, and an abscess of the lung eventuates in this case also. These cases are much better kept out of court, and the medical man is well advised in assisting, as far as he possibly can, in bringing about an amicable settlement between the parties. It sometimes happens that the patient is covered by a sickness and accident insurance, in which cases the Insurance Company can be depended upon to fight its own corner and recover its expenses, as far as possible, from the dental practitioner.

Breach of Contract. – The practitioner will sometimes find himself mixed up in cases that have to do with the letting of houses where the landlord or his agent has guaranteed that the drains are in good order, whereas the contrary turns out to be the case, and sore throats arise among the occupants. It often happens, I think, that the landlord or his agent is not guilty of fraudulent misrepresentation, for he may not know as a fact that the drains are out of order; but it has been held in important cases in the higher courts that even under these circumstances the land lord is liable for the costs of putting these drains right and for the illness caused by the drains, and has to pay damages accordingly.

Again, a person agrees to take a furnished house at a certain rate of payment per week or month, and finds the house infected by measles (to take an instance), and a member or members of his family take ill with measles. The medical practitioner investigates the case and it transpires that there had been measles in the immediately previous occupancy of the house by other tenants. The house has been disinfected, but this disinfection has been insufficient, and the house has been found to be actually still infectious. The Courts have held in cases of this kind that there was an implied contract of fitness for occupancy, and the person taking such a house is absolved from his contract.

Then again, we sometimes find our diphtheria and typhoid cases traceable to milk from an infected dairy. I have no definite information of cases such as these in our local Courts, though we as the practitioners in charge of the cases have often to state our opinions outside of the Courts; but in the English case of Frost *v.* The Aylesbury Dairy Company milk was supplied to the plaintiff by the defendant, and he gave away to his customers a printed booklet which stated that numerous precautions were taken to avoid infection of the milk. The plaintiff's wife died of typhoid fever, and it was found by the jury that infection in the milk was responsible for the death. The Court held that this milk was sold under an implied warranty of fitness and the buyer relied on the seller's skill. The seller was here held responsible.

Workmen's Compensation Act. – I have passed rapidly over these three groups – namely, Insurance Policy, Negligence, and Breach of Contract – and come now to that of the Workmen's Compensation Act, with which many of us are more familiar. I purpose under this group to go somewhat into the details of the various deceased conditions associated with accidents, and I shall start with the intoxications, making special reference to Alcoholism and Lead Poisoning.

I. *Alcoholism.* – The persons suffering from alcoholism can be classified in three divisions: – (a) The first form is *chronic alcoholism*, which is the condition of a man who, though possibly sober at the time of an accident, is diseased or affected by the cumulative results of previous indulgence in alcohol; (b) the second form is *delirium tremens*, which is an incident of the first form; (c) the third form is *acute alcoholism* or *drunkenness.*

(a) The *chronic alcoholic* must be regarded as a healthy man from the point of view of the one who injures him. To take an instance. A man met with a fatal accident, and was found at the post-mortem with his brain, liver, and stomach in a diseased state,

due to chronic alcoholism. This condition was no bar to his dependents, who recovered compensation as if he were healthy. It was held that his condition was consistent with his continued existence and capacity for work, and that the accident caused the death at an earlier period than that at which it would probably otherwise have happened.

(b) *Delirium tremens*. – This condition occasionally crops up in the surgical wards in alcoholics admitted for injuries, especially fractures, and is usually referred to as "traumatic delirium." If, in the height of his delusions, such a patient eludes the vigilance of his nurses, and jumps from a window and breaks his neck, or, if the attack takes a grave form and the patient dies from gradual heart-failure, such a result will be regarded in law as a natural and probable consequence of the injury to that alcoholic man.

(c) *Drunkenness and Acute Alcoholism*. – If a workman is performing his duties in a drunken condition and meets with an accident, such an accident will, under the Act, be held generally to be due to the man's "serious and wilful misconduct," and the employer will not be held responsible.

Not long ago a workman at the Island was found, about 2.15 in the afternoon, lying at the bottom of a ship's hold in a state of snoring unconsciousness. He had been missing from his work since 11.30 in the forenoon, was known to have been drinking during the dinner hour, and had evidently fallen down a ladder into the hold on resuming work after the dinner hour. He was taken in the ambulance to the Royal Victoria Hospital where the house-surgeon used the stomach-tube with great effect, relieved him of a large quantity of unmistakable porter, and made an entry to that effect in the books. The man had sustained a fracture of the collar-bone, and later on he claimed from the firm for compensation. He was much aggrieved when his claim was dismissed by the Recorder on the medical evidence, supported by evidence from the Works that he had been missing from eleven-thirty till two o'clock when he was hurt.

*Lead Poisoning.* – This disease is included in Schedule III. of the Workmen's Compensation Act of 1906, and the employer, or all employers with whom a man has worked for a period of twelve months preceding his disablement, may be held responsible for the disease and its sequelae.

The dependants of a deceased workman can claim for death when they can prove that the lead poisoning was the cause of death; but where the death is alleged to have been due to the sequelae it is necessary to prove that the conditions found were in fact the sequelae of that disease.

Where the sequelae might be due to many causes, one of which is lead poisoning, the onus is upon the applicants to prove that, in fact, the sequelae were caused by the lead poisoning, not merely that they might have been. These cases are of intense medical interest, and demand careful investigation from the practitioner.

To take one from the English Courts: –

A man in August, 1907, was working at lead: early in September there were signs of plumbism; on September 25th all traces of plumbism had passed away; he died on 2nd October.

The learned County Court Judge found,

(1) That the immediate cause of death was granular kidney.

(2) That granular kidney is a sequela of lead poisoning, but it is also a sequela of gout, alcoholism, heart disease, and other complaints.

(3) That lead poisoning was not proved to have been the cause of the granular kidney or of the death in this case.

This decision was upheld in the Court of Appeal.

To take a case nearer home: –

In February of this year a painter in a local shipyard was seized with sudden unconsciousness and died in twelve hours. His doctor certified the cause of death as cerebral hemorrhage. An examination of the body disclosed no blue line, nor had there been any history of colic, constipation, wrist drop or ankle drop. A catheter sample of the urine revealed no lead by the potassium bichromate test.

There was the scar of an old chancre, and some adenitis of the groins and neck. His doctor stated that some years previously he had treated him for a severe attack of syphilis, and the doctor, in face of this fact, did not feel justified in advising the man's dependents to claim for death from lead poisoning, as they proposed doing at first. The firm, I may state, gave them a substantial gratuity.

*Diabetes Mellitus.* – Coming to the constitutional diseases, I would make mention of diabetes in its association with injury.

It is not an uncommon thing to find in cases of minor accidents where the healing process is proceeding with unaccountable slowness that the patient is suffering from glycosuria, and that an improvement may be effected by attention to this latter condition.

Cases arise where it is difficult to say whether the glycosuria existed prior to the injury. If the patient has been admitted to hospital at the time of the

accident an examination of the urine will have been made as a routine measure, and this record can be referred to should glycosuria shew itself later on, but in cases outside hospital the practitioner will be well advised to examine the urine early in all cases of injury.

There is no doubt that injury to the spinal cord or brain can cause diabetes, but I have seen a case recently where there was no cord or brain injury. The patient was a labourer, aged thirty-seven, in the employment of an English firm of contractors who were carrying out work in Belfast. He received contusions to his shoulder and back in February, 1911, and attended one of our local hospitals as an outpatient. He was a typically neuropathic type of man, and about six weeks after his accident when his contusions had cleared up he started generalized tremors. Under examination his arms and legs shook *till he perspired*, and he simply yelled if touched anywhere; these were his only symptoms. The tremors were clearly under the control of his will to a certain extent, so that he could only be regarded as a mixture of neurasthenia and malingering. The doctors concerned did their best to affect a settlement, but the lawyers on each side, though directed to do so by the Recorder, could not agree about the terms of settlement, and weekly compensation continued to be paid from 1911 to 1914. In May, 1913, when I examined him, his tremors were still in evidence, though much less violent, but his anxiety about a settlement, which all along had been very marked, was now intense. I did not see him again till May of this year, when there was not a trace of tremor, his general health appeared excellent, but he was evincing delusions of persecution, and his anxiety for a settlement was acute, even painful. An examination of his urine shewed abundant sugar, whereas all previous examinations had shewed no sugar. The man was committed to the Asylum on June 22nd at the instance of the police, as his conduct had become violent, and sugar has continued in his urine off and on since his committal.

### Specific Infectious Diseases.

Taking up the subject of the Specific Infectious Diseases in their relation to Accident, we find that *pneumonia* occasionally presents much difficulty.

We recognise that it is a not infrequent occurrence from the results of an accident to some part of the body other than the chest, as, for instance, a wound which, having admitted microbes, has become infected so that pus is formed. Later on, pneumonia arises as part of a general blood-poisoning.

But we have to bear in mind that pneumonia may happen to a person who has received an injury, and yet there may be no connection between the pneumonia and the injury. To take an instance: – An elderly man, a holder-up on the Queen's Island, was struck on the forehead by a piece of iron on 3rd February, 1913. The wound was a slight one; he was dressed in the Extern of the Royal Victoria Hospital; he did not keep to the house, but knocked about in the very severe weather that then prevailed. On the 9th February (six days after the accident) he died from pneumonia. A *post mortem* was held by Prof. Symmers, at which the man's doctor who had attended him at home and Dr. Morrow were present. Dr. W. W. D. Thomson assisted Prof. Symmers and made stains. The wound was quite healthy; the pneumonia was a pure lobar type. At the inquest Prof. Symmers expressed the opinion that the pneumonia was unconnected with the accident and arose from natural causes. The man's doctor, however, was of the opinion that it was the result of the accident. The solicitor acting for the relatives was satisfied with the view of Prof. Symmers, and no claim for compensation was made.

The firm sent the widow a gratuity of £25.

*Syphilis.* – The protean manifestations of this disease have to be constantly watched for in patients who have been the subjects of accidents.

Take an instance where a man at his work sustains an abrasion of the skin: it is slight at first, but goes on to ulceration, which rest and local treatment fail to cure, and the ulcer drags on for an interminable time. A history of syphilis is elicited, and possibly confirmed by a Wassermann, and the exhibition of anti-syphilitic treatment will in a short time heal the ulcer, and put an end to the weekly compensation, and enable the man to resume his work.

To take another instance: – A man twisted his right knee at his work, deranging the internal semi-lunar cartilage.

Later on he underwent operation for this, and a perfect result ensued so far as the knee was concerned. Soon after he complained of dragging of the toes of that foot, and evinced all the signs of an isolated paralysis of the external popliteal nerve. He had got hold of the notion that in the operation for the removal of the injured cartilage from his knee some nerves had been cut, causing the paralysis of his toes, which view was anatomically impossible.

His pupils were irregular, his knee-jerks sluggish, and the pupillary response to light was impaired. He

admitted a history of syphilis. A Wassermann gave a doubtful result, but under anti-specific treatment he speedily recovered from his paralysis and resumed his work.

Not infrequently one came across men following their employment while the subjects of fairly advanced locomotor ataxia. A Charcot's joint could be aggravated by, or sometimes was attributed entirely to, a twist received at work, and if actual evidence of an injury was forthcoming the firm had to shoulder responsibility. Or a fall in a dark alleyway on board a ship might disclose the fact that there had been no obstruction in the way to cause such an accident, but that the man's impaired co-ordination has been at fault.

*G.P.I.* – I am able to relate an interesting case where General Paralysis of the Insane was unsuccessfully contended to be a head injury. A rivetter at the Island received a cut on his forehead at the latter end of July, 1910. No report of the accident was made to the firm till September, when he ceased work, as his mate would not work with him any longer on account of his peculiar behaviour: he was then showing signs of mental derangement. I definitely diagnosed G.P.I. in September, and considered it unconnected with the head injury, which was trivial, and had healed perfectly without any adherent scar. At my examination I noticed the scar of an old injury on his arm, and on pushing my enquiries I found that he had been attending the Royal Victoria Hospital at a date antecedent to his head injury, namely, early in June, for this arm injury, received outside the firm. An investigation of the Hospital records shewed that the observant surgeon in the extern, when treating this injury, had noticed his irregular pupils, his facial tremors, and his grandiose talk, and had made an entry of G.P.I. in the extern case notes.

The Boilermakers' Society, presumably acting on the medical reports, made no claim on the firm, who sent £10 gratuity to the man's wife to enable her to remove to Derry, her husband, who hailed from that place, having meantime been sent to the Asylum there. An enterprising solicitor got hold of the case, however, and brought it to Court. Dr. W. Graham, of Purdysburn Asylum, examined the man in the Derry Asylum, and gave evidence for the firm that the case was one of G.P.I., unconnected with injury, and his Honour Judge M'lroy, dismissed the claim.

This shews, incidentally, the great value of a case note, taken at the time.

*Syphilitic Arteritis* attacking the aorta and other large arteries and leading to aneurysms has to be borne in mind in cases of sudden death at work, and syphilitic endarteritis, with resulting thrombosis, presents interesting problems occasionally. Take the following case: –

A man, aet. 35, received a blow on the left side of the head when working in the shipyard. The blow did not render him *hors de combat*, and he resumed work next morning as usual. Three weeks later he developed aphasia and left-sided paralysis. He was taken to hospital, where the Wassermann test was twice positive, and syphilitic endarteritis, with resulting thrombosis, was diagnosed. He received anti-syphilitic treatment and recovered the almost normal use of arm and leg. Some time later he was again stricken with paralysis. Recovery was more gradual. The Wassermann test was again positive. In the Court the plaintiff's case, as put forward by his medical man, was the ingenious one "that the blow produced *contre-coup*." This was to explain the left-sided paralysis, but the aphasia could not be explained on this theory. The case was decided in favour of the employers on the medical evidence.

*Heart Disease.* – Sudden failure of the heart due, for example, to aortic valve disease or to longstanding intrinsic muscular degeneration, might cause a man to drop dead suddenly at his work, or to fall from a height, injuring himself, or possibly others, in his fall. Important questions of liability arise in these cases, and the most thorough investigation is required on the part of the practitioner in arriving at an opinion as to the true cause of death in cases of this kind.

Or valvular disease of the heart, with its secondary effect of embolism, might present a condition which could at first sight appear to be attributable to an accident. This may be illustrated by a case: –

A stager at the shipyard fell on a ship's deck, sustaining contusions of his left arm and knee. He insisted on being taken home instead of to hospital, and compensation was paid for fifteen weeks. At the end of that time I examined him, found that his contusions had cleared up, but that he was suffering from mitral incompetence and left hemiplegia. He said he never could understand why he fell at the time of the accident. The doctor attending him agreed with me that the man's condition was due to an embolic hemiplegia. We advised him, as the outlook as regards fitness for work was bad, to place himself in the hands of a solicitor. This was done, and the man's solicitor being satisfied that there was no legal claim, a gratuity was given to the man by the firm, the legal expenses paid, and the compensation terminated by agreement.

*Diseases of the Alimentary System and Sudden*

*Death.* – Diseases of the alimentary system, while playing a considerable part in causing death, have not hitherto been regarded as responsible for sudden death as generally understood, and hence have not provided problems as to the relation of accident and disease such as heart disease provides; but the time appears to have arrived to alter our views about this. Professor Symmers' remarkable series of autopsies on twenty-four cases carried in dead to the Royal Victoria Hospital, Belfast – persons who had simply collapsed and died, sometimes when at their work, and sometimes when not engaged in work seem to point to haemorrhagic pancreatitis as being responsible for many sudden deaths, the cause of which had hitherto been regarded as obscure. Apart from their great medico-legal interest, the scientific interest of these cases is very great. It is difficult to correlate the phenomena evinced in these cases (alcoholic indulgence, sudden death, gastric hyperaemia of a peculiar form, and a necrotic condition of the pancreas) to the ordinary theories held regarding sudden death from shock. The result of Professor Symmers' further investigations is awaited with keen interest.

*Neurasthenia.* – The subject of Neurasthenia in relation to injury calls for more than a passing notice, as cases so frequently occur. Quoting from Douglas Knocker's standard work, neurasthenia is a condition in which there is a general loss of nervous power without the existence of any recognisable changes in the tissues of the brain, spinal cord, or nerves to account for such loss of power.

*Traumatic Neurasthenia* indicates that the condition of neurasthenia is the direct consequence of externally applied injury to the whole or part of the body, or of some violent emotional affection induced by a catastrophe or impending catastrophe.

Properly understood the expression "traumatic neurasthenia " indicates a definite state, and it should not be used as a convenient connotation for every ill-diagnosed condition, a cover for ignorance, or an apology for malingering.

It is within the knowledge of everyone that a severe accident, such as a fall from a great height, may produce unconsciousness, and consequently loss of nervous power, whatever part of the body actually strikes the ground; but that these symptoms are liable to be brought about by a much shorter fall, if the subject lands on the top of his head. The same principle applies in the case of neurasthenia. But, of course, it is no more necessary that a person should suffer in any degree from neurasthenia, because he sustains an injury to his head than that he should become unconscious from a fall on the head. Many people sustain head injuries, and only a small proportion suffer from either temporary unconsciousness or subsequent neurasthenia. Neurasthenia may also occur after severe force has been applied to the spinal column. Apart from definite injury, it may be caused by powerful emotional stimulus. After an earthquake, accompanied by widespread destruction of life and property, such as occurred at Jamaica a few years ago, neurasthenia was by no means uncommon among the survivors, and the horrors of the present devastating war will be responsible for many an aftermath of this disease.

Neurasthenia, then, consists in enfeeblement of the nervous system, which is manifested by a temporary inability of the body and brain to perform their functions with due efficiency. It is regarded as a disorder of function and not of structure, and it presents phenomena mental, moral, and psychical in character.

Traumatic neurasthenia may be conveniently regarded as divided into two groups, namely, mild and severe traumatic neurasthenia. I shall content myself, at present, with dealing with the milder type, which we meet most frequently in our work.

*Mild Traumatic Neurasthenia*. – To appreciate adequately this condition, it is imperative to bear in mind that its morbidity is concerned primarily and essentially with the psychical functions of the brain, and that the general organism, in so far as it suffers at all, suffers in the main from perversion of the mind which, instead of controlling and adjusting the bodily economy, permits a certain degree of independence to be exhibited by the various systems and functions. The normal homogeneous working of the machine is temporarily disturbed, the fault lying, not in the parts themselves, but in the regulating mechanism. The trouble lies, then, in the mind, and in the body only through the mind; if the mind be restored, the bodily symptoms, *ipso facto*, vanish. For the same reason, everything which perturbs the mind, causes additional anxiety, or makes for stress, nurses the morbid state, and tends to keep it from recovery. At the same time, it must not be forgotten that the patient can, in these less severe types, largely influence his progress by a determination on his part to look upon the bright side of things, and to disregard bad advice and unwholesome sympathy, and it is here that the personality of his medical attendant comes in. The typical course of a case of mild traumatic neurasthenia is as follows: –

For instance, a man falls a few feet and strikes on the small of his back. He feels a little numbness and

tingling in the lower limbs, and he is a little dazed and upset. He leaves off work, goes home, and discusses the case with two or three neighbours, who shake their heads ominously and refer to similar cases in their experience, in which the patient became paralysed or sustained a rupture of some internal organ, and was never the same again. The patient becomes restless and fearful lest the same ate may be in store for him. By the end of a week or ten days the ordinary features of a bruised back have become to his disordered mind the impending symptoms of life-long paralysis; his apprehension increases from day to day; he lies awake at night, pinching his legs to see if he has lost sensation in them, sleep is broken, he awakes unrefreshed, and has distaste for food. He is averse from exertion or exercise; his only pleasure is the melancholy one of discussing his feelings and symptoms with those who will lend ear to him. Various subjective symptoms, such as headache, backache, giddiness, pins-and-needles, loss of strength, and vague uncomfortable sensations are commonly reported. Medical examination, however, reveals little that is objective. There may be slight tremor of the eyelids, lips, or hands; the lower limbs may be shaky, and the knee-jerk possibly increased; the pulse is often rapid, and the face perhaps pale and anxious.

The question of diagnosis is of vital importance. Traumatic neurasthenia has to be distinguished from organic disease, insanity, hysteria, or malingering. Great care has, in the first place, to be taken to exclude all symptoms of *organic disease*, especially of the brain and spinal cord, and if organic disease is found to be present, to determine if it is capable of accounting for the whole of the symptoms. The general appearance, demeanour, attitude and conduct of the patient is of the greatest importance in the diagnosis of traumatic neurasthenia, as in all psychoses, and in them and in the personal history the physician finds his chief positive evidence. The physical signs already described afford confirmation, and the absence of signs of specific disease clinches the conclusion. *Insanity* presents difficulties in those severe cases of hypochondriasis and depression which lie on the border line. The differentiation of neurasthenia from *hysteria* is more of scientific than of practical purport, especially as hysterical symptoms frequently complicate traumatic neurasthenia. The chief characteristic of hysteria is the capacity for auto-suggestion, and the local symptoms of hysteria are the results of that process. The distribution of anaesthesia and paralysis is an important guide. In organic disease they are distributed according to anatomical laws, but in hysteria not only may the anaesthesia and paralysis fail to correspond to any anatomical distribution, but they may vary from time to time both in intensity and position. Likewise hysterical contractures and spasms may be quite unlike those seen in the organic disease which the condition is simulating. With regard to the diagnosis from *malingering* traumatic neurasthenia, especially in its milder form, has been shown to be largely due to introspection and exaggeration, and traumatic hysteria being wholly a process of auto-suggestion, the line between both of them and actual fraud is frequently a narrow one. In mild cases of psychical ailments such as these two, when no physical signs exist, the difficulty of diagnosis is frequently the difficulty of deciding whether the person is consciously or unconsciously saying what is not the fact. In nearly all cases of both traumatic neurasthenia and hysteria there is a fictitious element, and in not a few cases the whole symptomatology is so unreal as to amount, constructively, to malingering.

### Cure and Return to Work.

It is not surprising that in an abnormal period of our nation's history, such as the present, the mighty wave of patriotism has caught up even the neurasthenic and effected miraculous cures. No fewer than three cases at the Queen's Island, men who had sustained more or less severe injuries and had been able only to resume light work (*time* work as opposed to *piece* work, where, to quote their fellow-workers, they were simply "killing time and baffling hunger") shook off their lethargy and depression; two of them 'listed at the outbreak of the war and got off to the front at once, and another, a former sergeant in the Irish Fusiliers, rejoined as a drill-sergeant.

But dealing with more normal times treatment has generally a marked effect on the duration of traumatic neurasthenia. The most important indication is to remove the patient from home, At the Queen's Island the firm pays for a holiday in the country, or at the sea, which is wonderfully effective in mild cases, while more marked ones are better for being subjected to a course of isolation in an institution, rest in bed, and moral management. The difficulty is to find such an establishment. We have had the best of results from sending cases to quiet institutions, such as the Bangor Hydro, at Bryansburn, where the patient can have electric treatment (galvanic and faradic and high frequency currents, and electric water baths, with excellent massage

treatment by well-trained male and female operators). With from six weeks to three months of such treatment the ordinary cases recover completely. An essential part of any measures undertaken for the relief of traumatic neurasthenia, however, is that the patient shall actively co-operate with his medical attendant in seeking a cure. An effort on the patient's side is necessary, and the sooner he is gently but firmly made to understand this the better for himself. If, through mental obliquity (or cussedness), he persists in turning his gaze inwards, contemplating his complaints and magnifying his symptoms, the longer is his relief postponed. For all these reasons, if a patient suffers from any but the mildest form of neurasthenia, isolation such as I have described is simply necessary. Only thus can he be removed from the atmosphere of injudicious sympathy and undue sense of injury which pester and prolong his condition.

A potent factor in restoring self-confidence and putting an end to mild neurasthenia is the resumption of work, especially when that work is of a manual rather than an intellectual type. Work sufficient to occupy the patient's attention and thereby to divert his thoughts from himself, forms a most wholesome corrective. Various Workmen's Compensation Judges, within whose purview these cases frequently come, and who, for laymen, have an amazing insight into their psychology, are apparently profound believers in work as a restorative in cases of this class, and we practitioners might with advantage do as they have apparently done, and adopt as our motto the poet's words –

"The cure for this ill is not to sit still
And to mope all day long o'er the fire,
But to take a large hoe, and a shovel also,
And to dig till you gently perspire."

In conclusion, I have to express my indebtedness to the writers of the various articles in "Accidents in their Medicolegal Aspect," edited by Douglas Knocker, M.B., B.L., – especially to Drs. H. Campbell Thomson and Hubert E. J. Biss, from whose exhaustive article on "Neurasthenia" I have quoted freely, and to those members of our own Society who have placed notes of their cases at my disposal.