Arthur Brownlow Mitchell (1865–1942)

President of the Ulster Medical Society

1913-14

Presidential Opening Address Ulster Medical Society 30th October 1913

INCAPACITY FOLLOWING INJURY.

Ladies and Gentlemen, I thank you very sincerely for the honour you have done me by electing me President of the Ulster Medical Society. I assure you it is an honour which I appreciate very highly, and I shall spare no pains to make the 1913–1914 Session a useful and instructive one, worthy of the reputation of Ulster Medicine.

At the outset of our new year of active work, I have to give expression to our deep sense of the loss we have sustained by the death of Dr. Cecil Shaw.

Dr. Shaw was one of nature's true men, sterling to the core, absolutely incapable of anything that was not transparently honest and straightforward. The longer you knew him, the more you trusted him.

His interest in this Society was intense. He acted as Convener of the Trustees, and since this Institute was erected he never missed the annual inspection of the buildings. He was a hard worker at his special branch of the profession, and from time to time contributed many valuable and interesting articles to our transactions. Cut off whilst in the prime of his manhood, we have lost in him a man who was an honour to our profession and a cultured citizen of our city.

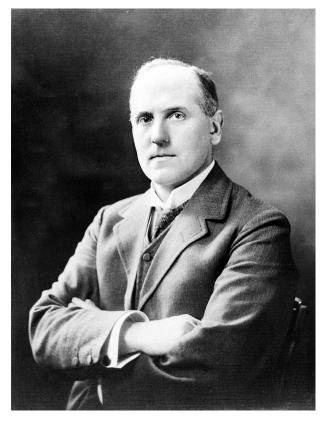
The subject which I have selected appears to me to be a subject specially suitable for an occasion like the present, affecting, as it does, every branch of our profession, and every individual member of it, whether he devotes himself to surgery, medicine, or one of the special departments.

Every practitioner whose experience enables him to contrast periods of time before and after the passing of The Employers' Liability and Workmen's Compensation Acts, will readily acknowledge that the duration of convalescence following injury has an increasing tendency to become more prolonged.

No one questions the wisdom of those Acts.

This beneficent legislation has staved off want and misery from many a home.

Like every other human law, however, these Acts have proved open to abuse. The good intentions of



the philanthropic legislator have been upset by the ingenuity of the lazy and the indolent.

Until human nature undergoes some marvellous and radical change, large numbers of men and women will be found in every community, who have an inherent dislike for work, and who are willing to seize on any excuse to secure relaxation from their daily toil. The heavier and more uninteresting the work, the greater will be the inclination to shirk it as long as possible. This is a point which should be borne in mind, when we have to consider the effects of an injury.

We may accept as true the proposition that a very large number of individuals, probably the majority of the population, are devoid of any real ambition, and are quite content to plod along under any conditions which afford a reasonable degree of comfort.

Of these again, a small proportion would prefer a bare subsistence on a few shillings a week to a degree of comparative comfort obtained at the expense of honest work.

When an individual of this latter type has been the recipient of an injury involving the payment of

weekly compensation, the difficulty in overcoming his scruples about returning to work is a very real one, and will tax the resources of his medical attendant to the utmost.

Whether we have to deal with an injury in a perfectly straightforward person, or in one who is inclined to exaggerate his ailments, our profession must accept responsibility under two heads

1st. We are responsible for the treatment of every case, on the most up-to-date and scientific methods.

2nd. We are responsible alike to our patient, to the employer, and to the State for encouraging an early manly, return to regular work. It is our duty, to prevent, as far as we can, any abuse of the Parliamentary Acts, and still more any exploitation of our profession in order to secure that abuse:

First then, Professional Responsibility for Efficient Treatment.

I do not here refer to gross neglect or want of reasonable care. That is, and has always been open to an action at law – a very serious matter in the life of any medical man.

What I mean to impress on myself, and every member of our profession, is the imperative necessity of making use of the latest and best means of securing the most rapid and satisfactory results.

Whether we meet these cases in the capacity of hospital surgeons or in the course of general practice, we have to face the fact, that the results of our work are every day the subject of a very severe, a very exacting, and often a very unjust criticism.

The multiplicity of interests involved increases the area of this criticism. The insurance company, with its numerous officials, and with its important financial interest in the rapid recovery of an injured person, keeps a sharp eye on our work.

The employer, with personal interest in his workers, and the stimulus of repeated communications from the insurance company, is certain to reflect seriously on the question of whether the very best is being done, or has been done, for the injured person.

Not one of us occupies so high a position that we can hope to escape such criticism. Every one of us must expect to be criticised, both unfairly and unjustly, and the more severe and unwarranted the criticism, the more offensive and objectionable will the critic generally prove to be.

Which of us has not heard of a case being "botched," a fracture improperly set, and so on. Those who are hospital surgeons need not imagine we stand on a pedestal, we receive our own share. Only too often, when asked to report on a case, we find it

mildly suggested that one of our own colleagues is in some way responsible for an incomplete recovery, or an imperfect restoration of some useful function.

The part played by rapidly revolving machinery, or the effect of imperfectly preserved alcoholic tissues, is frequently overlooked by the interested parties.

All these things we must be prepared to suffer.

We must defend ourselves by the one and only means in our power – the consciousness that every case that comes under our care receives the most careful, efficient, and modern treatment at our disposal.

I do not propose to labour this point. A reference to two examples will suffice.

I. The modern treatment of septic infections, such as the well known "whitlow," by means of very early and quite small incision, followed by the immediate application of Bier's elastic bandage for the production of artificial hyperemia, and the wearing of this bandage for 18-20 hours out of the 24, is so incomparably superior to the older method of free incision and prolonged poulticing — antiseptic or non-antiseptic — that the former method is now scarcely justifiable. The modern method will, in many instances, result in recovery with complete restoration of function in about 7-14 days, where formerly weeks of suffering resulted in a stiff or useless finger.

I am afraid the profession as a whole has not yet seriously appreciated the value of Bier's brilliant work in this simple and every-day affection.

To take another example-

The older treatment of fractures and sprains by prolonged splintage, and unnecessary rest, must give place to the modern methods of early movement, both active and passive, and skilfully applied massage, if we are to obtain the results, either in regard to completeness or rapidity of recovery, which we are all anxious to attain, and which our patients and the public alike expect

This compels me to refer to a point which the community at large has not yet appeared capable of understanding.

Modern methods, based as they are on sound scientific investigations, mean a *vast increase* in the *expense* of treatment. To treat a sprain by the daily application of a sedative lotion, costing a few shillings at the most, is a very different matter financially from utilising skilled massage for several days at a cost of 4s. to 5s. per hour.

The enormous advance in the diagnosis of fractures, the accurate estimation of the exact

amount of the deformity, with consequent indications for treatment, which has resulted from the introduction of X ray photography, is a further and a better instance of this point.

At the present time the public has unquestionably an exaggerated idea of the powers of the X rays, and the suggestions that are made to us for their use are often in the highest degree absurd.

This does not, however, detract from their real value, or from the obligation to make use of radiography in suitable cases, or where it can throw any light on doubtful injuries.

Here again the general practitioner is faced with the question of expense.

An efficient X ray outfit is a very costly matter, involving an outlay of some hundreds of pounds, and its maintenance in thorough working order is a further source of heavy annual outlay.

Hitherto the provision of such apparatus and its upkeep has been left to (a) one or two medical men in our large cities, whose private installations can only be available for those who can afford to pay a fee of £1 1s. for the required photo; (b) to our charitable hospitals, involving a very heavy drain on their funds, and an altogether unreasonable amount of work on the medical officer in charge of this special department.

X ray work must soon be divided into two classes:-

- 1. The highly skilled and specialised work, which deals with the treatment of disease and with the functions of the internal organs, stomach, intestines, kidneys, etc.
- 2. The purely photographic department, for detection of fractures and dislocations, location of foreign bodies, and so forth.

It is clearly in the interests of the large insurance companies that the general practitioner should be able to obtain such X ray photos easily and cheaply. It is unreasonable to expect the charitable public to do this work for the direct benefit of large financial concerns. It is totally impossible for the hospitals to cope efficiently with this work, even if they were, willing to do so. They must limit their services to their own patients. It would, I have no doubt, be in the interest of the insurance companies to organise and maintain in some central position an efficient X ray apparatus, in control of a competent photographer, for purely photographic work, to which medical men could bring injured persons, and where they could obtain photographs at a moderate cost.

I would here like to emphasise the importance of carefully interpreting these photographs, and



Fracture Right Femur, F.I., age 8. Received 5th August, 1912. [Left] Radiogram, taken from before, backwards. Position appears perfect. [Right] Taken laterally. Shows fragments in a very bad position, though every effort had been made to get good apposition by weight, pulley, etc., for one week.

especially of having two photographs taken in different directions.

A very striking example of this recently occurred in my own practice. A boy aged 7 was under my care in the Royal Victoria Hospital. His femur had been broken about the middle. An X ray photo, taken in the usual way, from before backward (fig. 1) seemed to indicate that the position of the fragments was very satisfactory, and treatment by extension was therefore continued. In about a week I again thoroughly examined the limb, and not being quite satisfied, had two additional X ray photos taken, one from before back, the other from side to side. The result was somewhat surprising (see figs. 1 and 2), as before the antero posterior picture gave the impression of almost perfect apposition, whereas the side to side picture showed the position to be so faulty, even after the most careful treatment by well recognised lines, that it was obvious some operative method must be employed if a really useful limb was to be obtained. The parents having consented, this was done,, with an excellent result.

Now this raises two very suggestive points:-

1st. If the second X ray had not been obtained till the expiration of two or three months, when it became necessary to find the exact reason why the boy remained very lame, and the limb impaired, it would have appeared to justify a charge of careless or incompetent treatment. Everything that any ordinary practitioner could have done, with the additional advantages of a hospital bed, resident surgeon, and competent nursing, had failed to attain anything but a deplorable result.

Had this case been under treatment in a country district, or indeed anywhere, except in the immediate vicinity of an X ray installation, to which he could easily be conveyed, I cannot see how a most unsatisfactory ending could have been avoided.

Such cases should make us all exceedingly careful to avoid a hasty condemnation, expressed or implied, of the work of our professional brethren.

The second point which presents itself is the very unfortunate effect that would be produced if these photos were presented by opposite sides m a medico legal case, one contending that the boy had made an excellent recovery, the other asserting that he was permanently and seriously damaged

Further, this case illustrates the enormous amount of anxiety, time, and trouble which are involved if we are to derive all the benefit of, the exactitude of modern surgical science. All this can never be thoroughly appreciated by an inexperienced public, and it seems unlikely that the public will ever attain such a degree of experience as to attribute to such work its full financial value.

The highest standard of efficiency is, I am satisfied, the ideal of every worthy member of our great profession. With this brief reference to the modern difficulties in the way of attaining that, object, I pass on to the more important aspect of my subject.

Our relationship towards those persons whose incapacity is unduly prolonged, and to one another in connection therewith.

The usual course of events is, that compensation is paid without question for what is regarded as a reasonable length of time, then the insurance company responsible for payment asks for a report from its medical referee, and in a large proportion of cases instructs the injured person to present himself at the doctor's house for examination. With this I shall deal later.

In a considerable number of instances, however, the employer, not being quite satisfied for some reason or other as to the bonafides of the injured person, instructs him or her to bring a doctor's certificate.

Now it cannot be too clearly understood, that under the Act of Parliament there is no liability on the workman to produce any such certificate, and any threat to suspend payment until such a certificate is produced is altogether unjustifiable and illegal.

All that the workman is required to do, is to notify the employer that he has met with an accident whilst at work, in consequence of which he is incapacitated. Should the fact of an accident having occurred be questioned, it then devolves on the workman to give reasonable proof that it actually happened.

As to the result of the accident, or the nature or extent of the injuries received, the workman is required to produce no medical evidence whatever.

The Act never contemplated that out of his compensation of half his weekly wages he should have to meet the expense of a medical certificate, and Parliament did not venture to suggest that philanthropic medical men should provide these certificates for the benefit of employers, or to be more exact, of insurance companies, without fee or reward.

The workman, however, must submit to an examination and report by any medical man named by his employer (which really means the insurance company), and the employer is, of course, responsible for any expense arising out of this examination. -

I venture to suggest that the profession should unanimously decline to give certificates of the nature referred to. When an injured person pleads for such a certificate, saying his pay will be stopped if he does not get it, we should point out to him, in the simplest and clearest manner we can, that it is quite unnecessary, but that if his employer wishes for a report, and gives a written order, we shall be pleased to supply it. A brief stand of this kind by the profession as a whole, would soon get rid of what is a very serious question in these cases.

A certificate, once written, is a somewhat dangerous document. You never know exactly where it will end. You are more or less bound by it.

It has two very serious objections. In the first place, you can never form any idea of the exact use to which it may be applied, or how far it may travel, steered by a keen legal driver. You may be quite sure it will drag you after it.

In the second place, it prevents your meeting the representative of the insurance company at a later date with a perfectly free hand.

I hold very strong views as to the duty of the medical referee for an insurance company in relation to the ordinary medical attendant. But consideration and courtesy cannot all be on one side. If a really satisfactory interview is to take place, then the medical attendant, oh his part, must be prepared to meet the referee, unfettered and open to conviction.

A further important point arises. If it once became an established principle that such certificates could not be obtained, the employer would soon come to see that the best interests of all parties would be served by his applying, in the first instance at least, for a report from the injured man's medical

attendant. The medical man would then have the interests of both parties to consider, and his report would have an additional stimulus to impartiality. Such a report should only be given with the consent of the patient, but that would very rarely be refused.

Let us now turn to the position of the medical man requested to examine one of these cases on behalf of an insurance company.

Such an examination should never be made if it can possibly be avoided, except in the presence of the ordinary medical attendant, and preferably at his house, or at least after communication with him. If a meeting cannot be arranged, some conversation should take place by telephone or otherwise before a final report is committed to writing.

Now this unquestionably involves a considerable amount of trouble, and expenditure of time and energy, for which neither party will receive any additional pecuniary rewards but the good fellowship and respect of our professional brethren represents a satisfactory reward in itself.

Having decided on this great principle, how are we to approach these cases. I have always failed to see why they should not be considered exactly as if it were an ordinary consultation. The object of the meeting is, or ought to be, to arrive at an absolutely impartial decision as to the capacity or incapacity of the injured person.

If an insurance company expects me to examine one of these cases with the idea of minimising in any way the actual results of an injury, then I won't undertake their work. Nothing could be more likely to be damaging to the companies' interests in the long run, or prove more expensive in the end.

A full, fair, and indeed liberal estimate of the degree and duration of incapacity, is certain to prove most satisfactory in its ultimate result, and is what the companies really desire.

On the other hand, when acting on behalf of the injured person, we must not let sympathy, which plays such a great and glorious part in the life and character of our profession, outweight our common sense and our professional honour. We are faced with a very grave difficulty when we are met with the plea: "Won't you do all you can for me." We feel that here on the one hand is a poor man who has suffered a great deal; on the other hand is a rich company — and we naturally incline toward the poor and injured.

Be generous, by all means, but remember you must be just. The very worst thing you can do for any man, rich or poor, is to encourage habits of idleness or shirking of work for trivial cause. The greatest kindness you can show, the best you can do for him is

to rouse his spirit of independence, to encourage him to make a manly effort to make the best of his condition.

I can imagine nothing more injurious to the average man than to hear his own medical attendant give evidence on oath, before a crowded Court, that he is beyond the bounds of hope, that the future offers no prospect of improvement.

If he believes and trusts his doctor, the effect must indeed be terrible, and a very heavy burden of responsibility must rest on the professional man who contributes to such a result. If, however, the man does not believe it, but exults in the feeling that he is making a tool of an educated professional man, then the doctor's position is still more undesirable.

When two competent medical men meet with the intention of discussing a case fully and fairly, it can only be on rare occasions that any serious difference of opinion can arise.

It is impossible, in a brief address such as this, to touch on various types of injury in any detail.

Broad principles, however, should govern our conclusions. We should make it our rule to accept as true the injured man's story of his condition, until something is complained of inconsistent with our ordinary experience, or well known medical principles.

For example, that most troublesome of all complaints, the "strained back," generally simplifies itself when two important points are considered:

1st. The relationship of the force causing the injury to the severity and persistence of the pain.

The man who falls 20 or 30 feet is, on the face of it, likely to have been severely injured. He who slips and falls against a bank of earth, and shouts out to a comrade, "Oh, I have "ricked" my back," must not feel aggrieved, if, after the lapse of some weeks an intelligent medical man suggests that his incapacity is out of all proportion to the cause which produced it. Our every day experience of the twists and tumbles which are so enjoyable on the football field, or the rapid recovery from a violent bang against a goal post, even though a player may have been carried off the field, and remain off it for some time, must necessarily make us suspicious of a six months' incapacity from a strain received in lifting a bag of potatoes.

2nd. When we find a man wincing and shouting at the slightest touch of a finger on his back weeks or months after an injury, even a severe one, our common sense at once rebels. We know that the site of a bruise or injury may remain tender and sensitive for a few days; for every one of us, at some time or

other, has been bruised or strained; but we also know that this tenderness passes off in a short period, after which the injured spot can be handled with impunity.

This common complaint of intense tenderness long after an injury, must therefore convey to any unbiassed mind the conviction of exaggeration, if not actual malingering. You may if you like call it neurasthenia, but it is a thing which could not exist as a real condition.

Again, the life habits of the subject require careful consideration.

In my experience, there is no man so susceptible of prolonged incapacity from a slight injury as the chronic unemployed, or the casual labourer. When a period of exceptional distress occurs in the labour world, and emergency works are organised to provide employment, my experience with the Belfast Corporation shows that we may certainly expect a number of very prolonged claims comparatively trifling injuries. The chronic out-of-work applies and pleads for a job. He works for a few days, but soon grows weary and leaves. If he is fortunate enough to manage to twist his back or sprain his leg, he endeavours to make the job of invalid a wonderfully permanent one.

When inquiring into the history of a doubtful case, it is worth while to get, if possible, some details as to the home, the family, and so on. Quite recently the following very interesting case came under my observation. A man engaged in unloading some bags of coke let one of them fall. He told his foreman that he had strained his back, but continued at work for the remainder of the day. Next morning he sent word that he was unfit for work. Five weeks later I saw him with his medical attendant. He complained of his back being painful and easily tired, and used a stick. In a friendly chat the following points were elicited:—

- (1) He was an old soldier.
- (2) He had four children, the youngest five weeks old.
- (3) Under the Insurance Act he had received 30s. maternity benefit from his society.
- (4) Under the same Act, from her own society, his wife received 7s. 6d. a week for five weeks, whilst incapacitated.
- (5) He was in receipt of 11s. compensation.

It was a curious coincidence that his back was strained the day of his wife's confinement, and the 30s. maternity benefit appeared to come in opportunely for the double event. His own doctor, who had never been quite satisfied about him, agreed to recommend him to return to work.

In estimating how soon an injured man should

return to work, we should err on the side of generosity, e.q., if our ordinary experience of an injury, where no questions of compensation arise, indicate six weeks as the usual duration of incapacity, then we may fairly add another two weeks for a margin of error. An extra week or two is not what the insurance companies complain of. A week, or even a month, is comparatively a small matter, and most companies prefer to meet injured persons quite generously. They dislike both the unpleasantness and the expense involved in legal proceedings. Where the medical men concerned can come to a fair and reasonable understanding, they will contribute to the avoidance of much ill will and bitter feeling, and help to promote friendly relations between labour and capital.

Surely, it is more consistent with the dignity of our profession to act in this way than to engage in an unnecessary strife for the benefit of a mixed audience in a Law Court. I can scarcely conceive a condition which really justifies a serious difference of opinion between two competent medical men. If there is a difficulty or a doubt, then both must see that difficulty, and are bound to acknowledge it fully and fairly.

A somewhat different type of case is that in which some actual maiming has occurred, and where the injured person claims some permanent impairment in his wage earning capacity. We are constantly called upon for evidence under these circumstances, and our difficulties are very great, and are increased by the fact that the law recognises no right to compensation on account of the actual maiming, except in so far as it can be shown to interfere with wage earning capacity. This is a constant grievance and cause of irritation.

The workman, when asked to return to work, frequently says: "But what about the finger I have lost; am I to get nothing for that?"

An arrangement whereby a definite cash value would be alloted in respect of different degrees of maiming – varying, of course, with the nature of the injured person's employment would avoid much friction and ill-will, and tend to improve the relations between capital and labour in this connection.

That, however, is a matter over which we have no control.

Whether or not such maiming may interfere with a man's prospects of obtaining employment in the open labour market is a different question. I do not think that is a medical problem. It is altogether a matter of business, on which we should not be called upon to express an opinion, and where our opinion

has no professional weight, it will generally be wiser to keep it to ourselves.

However much we may sympathise with the injured person, we have only one question to consider; Can he do his former work? Can he earn his old rate of wages? This is a very difficult problem. We are apt, when we look at a person who is obviously maimed in some way, to give a hasty expression to our first impression, and conclude that maiming means diminished capacity for work. But our every day experience should teach us to be very careful. The adaptability of the human frame is little short of marvellous.

To illustrate this point I have endeavoured to collect a few examples of severe injury to the hands, which constitute our most efficient working parts. It is really astonishing what can be done with the hand which has been badly maimed.

The following illustrations, with details of the injury received and subsequent capacity for work, speak for themselves [next pages].

These cases represent a series of actual facts. The individuals are all living and at work. It is not a matter of opinion whether they can do certain work. They are actually doing it, and doing it efficiently.

Instances similar to these must be known to all of us. When we think of them we must surely hesitate to pronounce a dogmatic opinion as to permanent incapacity. We will rather incline to give our timid and hesitating patients some encouragement – assure them they are capable of more than they think, and urge them to face their infirmity, in the certain hope that as they gain confidence their loss will be less appreciable, and power and usefulness will steadily increase.

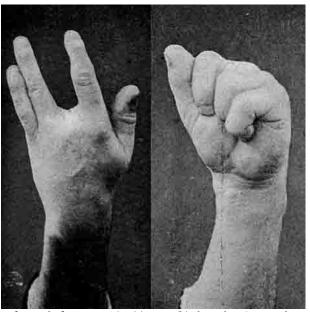
Many other points will occur to all of you. We may, for instance, be called on to decide whether a given condition is the result of injury or disease.

Tubercular disease of a joint is a good example of this; for while the tubercle bacillis, acting on the tissue of a predisposed individual is the essential cause of the trouble, the final determining cause is, no doubt, in many instances, an injury, however slight. Here again a fair consideration of each case on its merits will generally enable us to allot the blame with a considerable degree of accuracy.

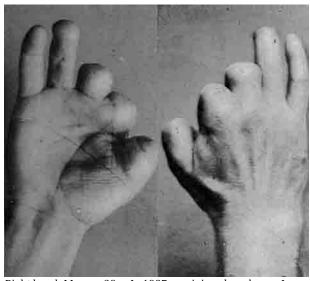
I need enter into no further details. My object in this address is to emphasise the great principle, that in all our dealings, the fair fame of our profession as an exact science should invariably hold the first place.

That neither our own personal convenience, nor the claims of one side or other in any dispute, should ever induce us to forget that courtesy to one another, which is the grand rule of our profession, a due exercise of which is certain to be beneficial in the long run, both to our respective clients and to ourselves.

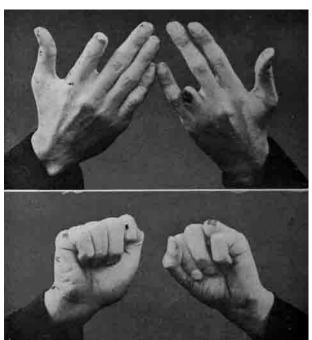
If in any way I have contributed to this end, my only desire has been achieved.



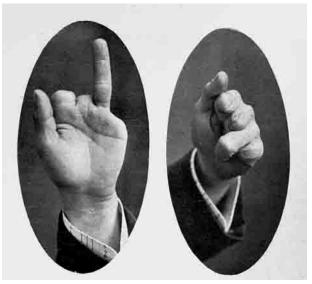
Left Hand of I.F., age 45 – (a) open, (b) shut, showing good power of grip. Third finger amputated on 7th August, 1911. In six weeks he had resumed his work as a quay labourer, and for past two years has been earning full wages; engaged at very heavy work, unloading coal boats, etc. He says he has good power of grip, but after a long spell of heavy work is liable to have a slight feeling of cramp in the hand.



Right hand, I.L., age 38 – In 1897 was injured as shown. In six months he could do his ordinary work as a joiners' machine man, and continued to make full wages for twelve years, till 1912, when the hand was crushed and the nerves injured, so that he lost the power of grip, which till then had been quite good.



Hands of I.F., age 20 – Injured whilst at work at a planing machine in March, 1913. In two months he was able to resume work, and in September, 1913, could use his hands "as well as ever."



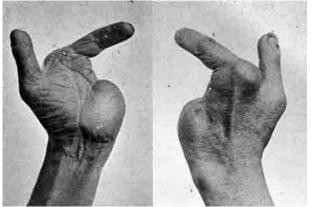
Left hand of I.C., carpenter, injured by a planing machine in 1896. He resumed work in nine months, and was soon able to do his regular work and earn full wages. He decided to emigrate to Canada in 1903, where he at once obtained work as carpenter on the Canadian Pacific Railway. He very kindly sent this photo.



Hands of W.I.E., age 40, wood-working machinist – During his apprenticeship he lost the last two joints of four fingers of his right hand. In 1904 he lost the last two joints of the ring and little fingers of his left hand in the works of Messrs. Harland & Wolff. Since 1907 he has been in the employment of Belfast City Tramways, and the Chief "Engineer writes me "He is without doubt the cleverest craftsman I have ever employed." He does the finest and most ornamental work.



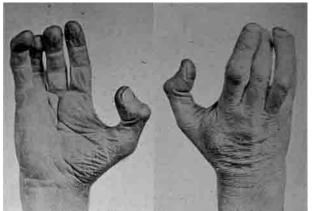
Right Hand, I. M'C., a tramway cleaner, age 46 – At 20 years of age his hand was caught in a hackling machine. He lost the entire thumb, and portions of all the other fingers. The skin of the forearm was also extensively lacerated – scarring extending several inches up the forearm is well shown. He has been 6½ years in Tramway service. His foreman says: "He is the best cleaner I have ever had."



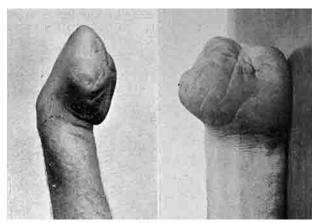
T. W., shipyard machine attendant (left hand). Age when hurt, 22; present age, 68; 3rd, 4th, and 5th finger lost, 2nd finger distorted; was four months off work. Is paid a special wage (30s. weekly), for his job, owing to his being a handy man. This is 10s. more than labourers' wages, and 10s. less than a tradesman's. He never learned a trade. Uses hammer and spanner at his work, which is adjusting and changing knives on steel cutting machines, and adjusting and changing dies and punches on steel punching machines.



T. L., a pattern maker (left hand). Age when hurt, 32; present age, 60; was eight weeks off work. Earns average wages. Uses all a pattern makers' tools, which are the same as a joiner's, i.e., hand saw, hammer, wood chisel, brace and bit, etc., etc., and sharpens his edge tools himself.



J. S., engineering machineman; age when hurt, 30; present age, 50; right hand much distorted; 18 weeks off work. Earns average wages. His work consists of fixing jobs on machine by means of clamps. Spanner and hammer chief tools; adjusting and changing cutters on machine (tool, spanner), occasional fairly heavy lifts.



C. S.,. sawyer (left hand). Age when hurt, 35; present age, 46; was $6\frac{1}{2}$ months off work before resuming, but this date was much delayed finding negotiations for a lump sum settlement of his compensation claim. His wages were 35s. per week prior to the accident. He was started again at 25s. per week only, but has proved so useful that he has been gradually increased to his present rate of 34s. The full rate just now is 37s. 3d., and his foreman purposes raising him to this through time. He does the full work of a sawyer, i.e., at an electric driven circular saw. He sharpens, and setts all the different sizes of saws, at which he uses a file and sett (a small kind of spanner). He adjusts and changes the saws on the machine, the tool for this being a spanner. He lifts all kinds of wood, from small pieces to heavy logs, off the floor, and passes them through the machine. A "taker-off" (labourer) takes off the sawn wood at the other end.



Right Hand, I.H., age 45 – At 17 years old, by a machinery accident, he lost the entire thumb, index finger, and half of third finger. In six months he was at work, lifting, shovelling, digging, harnessing and driving horses; anything in fact. He can write very fairly with this hand.



Right Hand of I.H. - Shut