CHAPTER XIX

SUPPURATION AND ITS PREVENTION

Abscess.—It sometimes happens that an abscess is asserted to be caused by a blow or a strain. When damages are sought, the accident is often alleged to be the sole cause.

In the absence of bruising and its accompanying ecchymosis, or any evidence of traumatism or of solution in the continuity of the skin, it is difficult to accept the contention that a blow or a strain alone has determined a subsequent bacterial infection.

In the absence of a wound a painstaking search must always be made for small local lesions of the skin or mucous membranes, for a localized ulceration of the mouth or fauces, for insect-bites, scratches or cracks of the skin of the fingers or toes, any of which may present the necessary inlet of bacteria to the deeper structures.

It must be remembered, however, that a severe blow, a fall, or a strain, may produce a local resistentive necrosis which, owing to the lessened resistance to microbic infection of the tissues, only requires the invading bacteria to set up an abscess.

There is no difficulty, where there is a reliable history or evidence, at the examination, of a wound, in associating it with the subsequent suppuration. But the statement that a sprain, strain, wrench, blow, or any other form of accident, which does not involve a break in the continuity of the skin, has *per se* caused suppuration ought not to be accepted without careful investigation.

This subject is so technical and difficult that I have taken occasion to consult Dr. Carl Hamilton Browning, pathologist to Middlesex Hospital, who has kindly assisted me. Though the conclusions come to are necessarily inconclusive (owing

to the imperfect state of our knowledge of the exact method of infection), the reader may be satisfied that the opinions expressed represent the latest knowledge in this branch of pathology.

Observers state that internal organs taken post mortem from healthy animals under experimental conditions very often—if not invariably—contain organisms, and so conclude that the bacteria were there *in vivo*, and it is known that *persons in "ordinary health" may have bacteria in their blood—e.g., B. typhosus.*

Browning states that occasionally the portals by which bacteria enter the body are so minute that it is obviously in most cases purely academic to call them lesions. The comparative infrequency of cases in which pyogenic organisms result in abscess formation in cases of slight traumatism, would point to some special circumstance operating—*e.g.*, special virulence of the organism or special susceptibility of the individual. The virulence of the entering organism varies enormously, and determines whether a lesion develops or not. This is illustrated by the occasional disastrous infection received at post-mortem examinations and during operations on highly septic cases.

If there is any considerable interval between a very slight injury and the infection, the connection may well be doubted.

A pyogenic condition alleged to have developed as the result of a trifling trauma is extremely unlikely to have been caused thereby if there has been any considerable latent interval, say a week or more.

On the other hand, it is obvious that a more serious injury with a definite subcutaneous hæmorrhage may set up a pyogenic condition at the site after a considerable interval.

Rose and Carless ("Manual of Surgery," p. 561, last edition) state: "Moreover, spots of localised ulceration are often present in the throat, mouth, or intestines, which give a ready entrance for micro-organisms into the system. *Evidently some of these must be circulating within the blood* ready to attack any area of diminished resistance. A slight injury in the shape of a strain or a wrench, which is often entirely overlooked, may suffice to determine the commence-

ment of an inflammatory process which rapidly spreads until perhaps the whole bone is affected."

Loss of Substance after Suppuration.—Loss of substance the result of suppuration or sloughing, when it takes place in large muscles, such as the vastus externus, or the hamstrings of the quadriceps extensor, sometimes produces an unsightliness out of all proportion to the diminution of power resulting from the accident. It is not infrequent, therefore, to find that during the process of healing, which is necessarily slow, a man has consciously or unconsciously been influenced by actual loss of tissue to exaggerate the resulting disability.

It is not unnatural for a layman to associate a loss of substance with a corresponding loss of function, making no allowance for the surplus power with which Nature so lavishly supplies us. This is exactly the class of case in which the judicial authorities, if unassisted by a medical referee, are apt unduly to sympathize with the plaintiff.

F. L. was impaled on a railing, and was the unfortunate victim of a somewhat serious accident, his left gastrocnemius muscle being badly lacerated. Probably some sloughing had taken place; and though the healing process was complete, the outer head of the gastrocnemius was partly wanting, and this produced a particularly irregular and asymmetrical appearance. It was evident from his mental attitude that F. L. never intended to work again, and that, unless he were forced to do so, he meant to have an easy time for the rest of his life. Like so many of his class, he spoiled his case by exaggeration. His position was that, whilst he could stand, he could not do it for any length of time, and, naturally, no one would employ a man who had periodically to sit down whilst at work.

The man's statement of his disability was, as in many similar cases, difficult to refute; for it was obviously impossible to have a doctor in attendance to examine and report upon his gastrocnemius when the period arrived at which it was alleged to give way.

One was therefore compelled to rely upon what evidence could be adduced in the comparatively short time during which the patient was under examination. I quote from my report the tests which were applied in this case:

1. I asked him to stand upon the fore part of his foot, tiptoe fashion, whilst I balanced him by letting the tips of his fingers rest on the tips of mine. Whilst in this position, I induced him to stretch forward his right foot and put it lightly on the top of mine. This left him standing on the fore part of the foot of his injured leg. He was therefore bearing practically the whole of his weight upon his left gastrocnemius or calf muscle.

2. He was induced to walk barefooted, heel and toe fashion—that is, he put the heel of each foot alternately in front of the toe of the other. This showed that he had considerable power of balance and co-ordination of all his leg muscles, and the left gastrocnemius comes largely into play in this movement.

3. His ankle was bent up, and he was asked to straighten it, which meant that he had to pull his heel up by means of his calf muscle, and he displayed considerable power.

Similarly with regard to other muscles, bearing in mind their origin and insertion, their power of contraction can often be gauged by methods which those ignorant of anatomy have no means of recognizing at their true value. For instance, muscles which normally move a joint may be apparently useless, but can often be brought into powerful action if an attempt is made to move the joint passively. Some malingerers think the correct rôle is to resist everything!

Ulcer of the Leg.—A large number of working-men suffer from chronic ulceration of the leg, and, provided it is not the result of an accident, continue to work for months, and sometimes years.

In the event of a subsequent accident to the adjacent part, it is always a somewhat difficult matter to deal with if the plaintiff attempts to associate the old-standing complaint with the accident. This is especially the case where, as sometimes happens, an opportunity of examining the case is not afforded till some considerable time after the receipt of the injury; for, as is well known, wounds following an accident sometimes rapidly develop an ulcer-like appearance.

C. S.—I was asked by a firm of solicitors to examine, on behalf of the defendant, an actor, aged forty-one, who alleged that he had injured his leg in a street accident. His statement was that he finished his business that day, but on undressing in the evening found his pants sticking to his leg, and treated the wound himself. The allegation was that he had lost some fifty engagements at music halls; yet, although he was losing so much money, he did not try to hasten his recovery by seeking medical aid until *seven months* after the accident.

Examination.—On examining the whole of the leg, I found a large varicose vein running up to the groin, and the remains of an old-standing varicose ulcer at the lower part of the shin, which had the appearance of having been recently healed. The appearance of a recently healed varicose ulcer is characteristic; there is usually a thin, glistening, bluish piece of skin wholly or partially surrounded by a dappled area.

C. S. contended that the blow on his leg was the sole cause of the

condition. He had effectually evaded any dogmatic medical statement by preventing the defendant having a medical examination until the wound had healed. It was impossible for anyone to say with certainty, from mere inspection, when the ulcer had first occurred, though from its appearance I felt prepared to say with some confidence that it must have been a somewhat serious one. My view was that at the time of the accident he had an ulcer, probably of very old standing, and that he made up his mind he would have it healed at the expense of the defendant.

I felt sure I was dealing with a fraudulent claim, and that his story was so unsound that he would have difficulty under cross-examination in convincing a jury of his *bona fides*.

Result.—About two months afterwards, at a County Court, the case was heard by a Judge sitting with a jury, and a verdict was given for the defendant.

Early Preventive Treatment of Suppuration.—Judging from the very large number of poisoned wounds which I see in the course of a year, it is evident that some modification of the present methods of rendering first-aid are imperative if much suffering and prolonged disability are to be avoided.

In one branch of my work—namely, the examination of employees of two large public bodies, who have met with accidents—during a little over nine years there have been 617 cases of various wounds of limbs, 85 cases of burns, and 32 cases of traumatic amputation of fingers, a considerable proportion of which were the result of paronychia.

There is an immense and unnecessary amount of time lost by working-men as the result of preventable poisoned wounds of the digits, and the mental and moral effects of the prolonged idleness thus caused is incalculable. The pain and suffering from this particular form of sepsis is always of a very distressing nature. How many times one is told of patients who have walked about their room all night in the most intense suffering from a paronychia following some trifling wound, which, owing to woefully bad surgery, has not been incised in time.

If a potent but harmless antiseptic, such as iodine, were applied to wounds immediately they occurred, much would be done to prevent septic absorption, with the consequent disabling troubles, such as paronychia and cellulitis, which so frequently follow comparatively trifling injuries. It is well known that even healthy skin contains innumerable harmless saprophytic bacteria which change in variety and quantity

according to the hygienic condition of the individual. It is therefore of the greatest importance that not only the wound itself, but also the skin in the immediate neighbourhood, should be subjected to complete disinfection at the time of the injury. More especially does this apply to small penetrating wounds, pricks, etc.

I believe if all wounds were freely treated at the time of their occurrence with a 2 per cent. solution of iodine in rectified spirit, and then covered with a dry dressing, and not interfered with except by a surgeon, there would be fewer cases of necrosis of the phalanges and amputations of finger-joints.

And it would be very useful if all employers of labour were to adopt the simple expedient of having such dressings easily available. Common humanity, if not actual commercial saving, calls for their provision, and I can see no objection to the insurance companies making it one of the terms of their policy. I have drawn up some instructions as to the materials required and their method of application, in cases of injuries of this character; they are as follows:

Small Wounds, Cuts, etc.

The following materials should be kept in stock in large, wide-mouthed, well-stoppered glass bottles, and labelled *For Wounds and Cuts.*

1. A 2 per cent. solution of iodine in rectified spirit.
2. One-ounce packets of sealed aseptic boric lint.
3. Bandages.

When an injury of any sort takes place, whether it be a tear or even a prick, a little of the iodine solution should be at once poured from the bottle directly on to the wound and surrounding skin. The skin around the wound or prick opening should be stretched a little to allow the iodine solution to sink in. The place should then be covered over with a *dry* pad of boric lint and bandaged.

The iodine solution will make the wound smart for a short time, but this is to be expected; it amounts to little more than an inconvenience, and will do no harm. The iodine will also temporarily discolour the skin, but this is of no importance.

Note.—Washing and scrubbing a wound, or even the skin in the neighbourhood, often leads to blood-poisoning by washing germs into the wound. Therefore the less the wound is interfered with, the better; neither wash nor cleanse the wound nor the surrounding skin.

The iodine solution is a pure disinfectant; it immobilizes the germs in the environment of the wound, and helps rather than retards the healing process. The iodine solution should not be applied to wounds of the eye.

When a packet of boric lint has been broken into, the unused portion is *not* to be kept for future use.

Burns.

The following materials should be kept in stock in bottles, and labelled *For Burns.*

1. A 10 per cent. solution of eucalyptus in olive-oil.
2. One-ounce sealed packets of aseptic lint.
3. One-ounce sealed packets of aseptic absorbent. cotton-wool.
4. Bandages.
5. Small bottle of castor-oil.

Nos. 2, 3, and 4 should be kept in wide-mouthed stoppered glass bottles.

The first thing to do is to get the dressings ready. Remove the clothing over the burned surface with great care. Do not drag—*cut* the clothing off. The burned surface should not be exposed for any length of time to the air, and should be immediately covered with lint soaked in the olive-oil. Take a piece of lint by the edges, being careful not to touch the portion which will cover the burn; pour some of the oil on the centre of the lint, and apply at once to the burn. Place a thick layer of cotton-wool over the lint and cover with a bandage. If the eyes are burned, do nothing more than put a drop or two of castor-oil into the lower lid.

In severe burns the patient always suffers from shock; he should be laid down and covered with a rug, and given a cup of hot tea or coffee; this should be done whilst the burn is being treated.

CHAPTER XX

SELF-INFLICTED INJURIES

Self-Inflicted Injuries.—When wounds of this nature are found, they are either in hysterical girls who injure themselves to attract attention, or are made by malingerers or criminals who endeavour to put investigators off the scent by pretending that they have been injured. In cases of supposed burglary, for example, it is not at all unusual for the perpetrator of the crime to injure himself intentionally, so as to bolster up his tale that he has been assaulted by other people on whom he tries to fix the crime. Such wounds are usually superficial. It is quite exceptional under such circumstances to find anything in the nature of a deep or penetrating wound going beyond the true skin; still less usual is it to find it in any way undercut—that is to say, longer in the deeper parts than on the surface. On the other hand, wounds inflicted by accident or otherwise are often undercut.

Self-inflicted wounds are very rarely found in parts of the body which are regarded as mortal, as, for example, over the heart or the abdomen. They are generally situated in easily accessible spots on the front or sides of the body or limbs, and their direction is generally that which would be taken by a man using his right hand, if he is right-handed, or *vice versa* if he is left-handed. They are multiple and scattered in different parts of the body. They often show a curious parallelism in their direction; see Fig. 47, p. 360, where the longitudinal linear incisions appear to have been made by using the prongs of a fork.

A further point is that such wounds very rarely have any bruising in connection with them. Self-inflicted wounds are very seldom found in civil life upon the hands, which most commonly suffer from accidents in ordinary everyday life. In military life the hands are often the seat of self-inflicted injuries.

In investigating any case in which there is a suspicion that the injury has been self-inflicted, attention should be given to the clothes, for it is not uncommon for a man, after having cut himself, to attempt to make corresponding incisions in his clothes. Under these circumstances there is almost certain to be some discrepancy. Either the incisions in the clothes are not of the same size or in the same direction as the wounds in the skin, or the cuts in the various layers of clothes do not correspond with one another. There may be no sign of bleeding, or the blood-stains may be more evident on the outer portions of the clothing than on the underclothing.

F. J. Smith, for example, describes a case where a man inflicted a wound on himself, and alleged that it was the work of a criminal; on investigation, however, it was found that, although there was an incised wound of the skin and a large cut in the cloth of the coat, the *lining* of the coat had not been penetrated !

Wounds may be self-inflicted for the purpose of extorting damages; this is, however, rare. Much more commonly genuine wounds following an accident may be intentionally kept open.

C. L. tried unsuccessfully on several occasions, by means of alleged trifling injuries, to obtain his discharge from a service in which he is entitled to a handsome pension if found permanently unfit for work as the result of an accident in the execution of his duty. Irritated by my persistent refusal to recommend a pension, he produced by friction or external force an inflamed condition of his hand, accompanied by a suspicious-looking pustular eruption. A medical friend enveloped the whole hand in a firm case of plaster of Paris. The wound healed, and he returned to work within three weeks. Ultimately he left the service.

It fell to my lot to examine this man at —— Barracks some years later, when in 1915 I was acting as a member of a travelling medical board. He had recently had a short spell of service in France, and had been sent back on account of an alleged painful condition of his feet. When he came before the board, he complained of a dropped foot, and appeared to me to simulate to perfection paralysis of the tibialis anticus group. The examination was therefore postponed for a report upon the electrical reaction of the muscles of the foot. Some weeks later the following report was received from the electrical department of the military hospital to which he was sent: "1. Partial reaction of degeneration in tibialis anticus group; liable to develop permanent deformity. 2. A special instrument should be worn to correct the defect."

Being convinced that a mistake had been made, I applied for a further and more exhaustive examination, and arranged that it should be made in conjunction with a senior medical officer, with the result that the following amended report was forwarded:

"1. No abnormal electrical reactions; no lesion of the nervous system which would produce the gait now exhibited; tibialis anticus group act voluntarily, and react visibly to both faradism and galvanism. 2. The order for the special instrument has been countermanded."

He was then ordered full military duty, but obstinately refused to do it. He was, however, compelled to do full fatigue duty. He thus successfully evaded active service, and remained safely at home enjoying the privileges of barrack life.

Without actually inflicting an open wound, an uncommon and clumsy method of producing a swollen and œdematous condition of one of the extremities is that of constricting the upper part of the limb. No one but an amateur who is rendering first-aid would fail to remove a constricting garter, but even members of the profession might be excused if they are not always on the lookout for deliberate fraud such as the following case sets out:

Mr. Percy Botterell, at a meeting of the Medico-Legal Society, related an interesting case of a man who had part of one finger amputated as the result of an accident, for which he was paid compensation for several months. Later on he returned to work as an able-bodied seaman, but in a different ship.

He now made further claim on the ground that the stump of the amputated finger had become tender. His claim was admitted, and compensation was paid for a few weeks. He ceased attending for his weekly allowance, and it was then discovered that he had entered a hospital, the complaint now being a swelling of the hand and forearm, which he alleged was the result of the original accident.

The swelling and œdema having no obvious origin, suspicions were aroused at the hospital, and the whole arm was put in plaster of Paris, when the whole of the swelling and œdema rapidly disappeared, only to recur a few days after the plaster was removed. A second time the arm was encased in plaster of Paris, and again the swelling disappeared. A few days after the removal of the second plaster of Paris case, the arm was found to be again swollen and œdematous. This time circular marks were noticed upon his forearm, which corresponded to two thick elastic bands which were found in the man's possession. He was expelled from the hospital, and forthwith commenced proceedings for the recovery of his compensation, but upon the above history being proved by the surgeons and a nurse from the hospital his claim was dismissed. Criminal proceedings were set on foot, but the Judge held that, as the man was a foreigner, he may not have understood the nature of his acts!

A form of punctured wound such as occurs in hydrophobia from the bites of mad dogs or jackals is well known to be common in India. The painful nature of the disease mentioned, and the serious economic loss to the army from this cause, led to the practice of sending to the Pasteur Institute in Paris all soldiers who had run the risk of infection of hydrophobia. Each man thus sent cost the Indian Government £100.

One would imagine that to have been bitten by a rabid or supposed rabid animal, say at Quetta or Simla, and then to be sent a long, tedious journey, extending as it did over many weeks, with the certain knowledge that the disease in the system must be slowly incubating, would be a trial which few could bear with equanimity. Not so in the case of Mr. Thomas Atkins: he enjoyed it. If the treatment at the Pasteur Institute was successful he recovered; and if not—well, he did not live to regret it! Making all allowances for a soldier's philosophy, the Government began to suspect that the number of cures was somewhat remarkable, and that the number of bites said to be caused by alleged rabid animals which could not be produced was also remarkable, and was markedly on the increase. Moreover, inspection of some of the alleged dog-bites with a magnifying-glass proved many of them to be mere scratches.

A regimental medical officer, making a sanitary inspection of a camp late one evening, happened to knock his foot against a bone attached to a strong piece of wood. This, upon investigation, was found to be the lower jaw taken from the skeleton of a dog, and attached by two strong springs to a piece of hard wood. Thus a genuine bite with the proper indentations of the teeth, tearing of the flesh, etc., could be produced without the risk of hydrophobia. And who was to deny the tale that the mad dog which had inflicted the bite had disappeared into the jungle? The authorities of India, however, were equal to the occasion, and a Pasteur Institute was established at Kasauli, and our soldiers paid no more unnecessary journeys to Paris.

I understand that few malingerers really care to go to Kasauli, for the treatment, robbed of the pleasures of a long sea-voyage, is now rather deterrent than otherwise.

CHAPTER XXI

MALINGERING IN SKIN AFFECTIONS

In view of the increased amount of malingering with which one is now threatened, I think factitious skin affections are likely to play an important part. I shall, therefore, very briefly indicate one or two important points in connection with this somewhat difficult phase of attempted fraud.

Lesions of the skin may be produced in many ways; even simple rubbing with a wet finger, if persistently carried out, will raise an erythema. This, however, is a somewhat tedious method, and it is sometimes found that friction with the moistened end of a match or persistent pricking with a needle is resorted to, since these plans are quicker and more efficacious.

Other methods are the application of a too hot water-bottle to the skin, of carbolic acid (frequently employed, since it is very easily obtained), or of agents such as cantharides, mustard, mustard leaf, or croton-oil, all of which blister, and may even produce superficial ulceration of the skin.

More serious injuries, deep ulceration and gangrene, which are sometimes found, are generally produced by the application of strongly caustic acids or alkalies. One feature of these skin eruptions is that there is often a succession of diseased areas.

Dr. McKendrick of Edinburgh has kindly sent me a note of the following case:

> F. H.—A girl who had undoubted syphilis and a secondary eruption was about to be discharged from the Edinburgh Royal Infirmary, when a fresh crop of eruption suddenly appeared, which was not characteristic of the disease. It subsequently transpired that some of the areas were produced by pinching the skin with the finger-nails, some by rubbing and scratching, and others by the application of heat. The hands were tied up, and the whole rash disappeared.
>
> Seven years later the same girl was brought to the surgical X-ray department of the same infirmary by the matron of a home for desti-

tute girls, with a report that the girl had swallowed a large number of ordinary pins. X-ray examination was negative, and Dr. McKendrick, who fortunately remembered the girl's face, and said so, obtained from her the confession that she had not in fact swallowed any pins!

The case betokens a peculiarly twisted mental attitude and a moral obliquity which is interesting.

Nature of the Lesions.—These lesions appear suddenly and at irregular intervals; they may be single or multiple. There may be a simple erythema, bullæ, or shallow ulcers; in rare cases severe, deeply-cut ulcers are found, or even patches of superficial gangrene. They have the following characteristics:

1. The condition produced is unlike any of the usual skin diseases.

2. According to the usual geography of factitious skin eruptions, they occur in situations easily reached by the right hand of the patient if he is right-handed, or on the opposite side if he is left-handed. Such situations, for example, as the front of the arm and the forearm, and the thigh and the leg, are favourite sites. The area between the shoulder-blades cannot easily be reached, and this is generally found to escape.

3. They are infrequent in the neighbourhood of the mouth, nose, ear, scalp, knees, hands, and the genital region. The soles of the feet are also avoided, as an eruption there would impede locomotion.

4. The lesions often have a characteristic aspect. Usually they run longitudinally—that is to say, in the length of the limb on which they are inflicted. The shape may be curious and suggestive. Ulcers, for example, may be perfectly circular, and in such cases have been produced, in the case of crude imitators, by the application of a coin soaked in some irritant; or they may take the shape of parallel scratches, such as might be produced by a fork.

Eruptions following a straight line are unknown in dermatology. Any patch of dermatitis, therefore, which follows a straight line for any part of its margin is suggestive of fraud. A suppurating, angry dermatitis in a more or less straight line may be produced on the outer edge of the left forearm by the simple process of persistent friction by the right hand. It is well to remember that one is apt to be thrown off one's guard by a very inflamed, angry-looking patch of inflammation;

instinctively, from preconceived ideas and association, the appearance makes one think of disease. Many cases have been recorded where blistering has been produced by the simple process of cutting off a small piece of a mustard plaster and applying it to the skin. The straight lines tell their own tale.

5. The surrounding skin is significantly healthy.

6. The sensation of the part is usually alleged to be abnormal; either the patient complains loudly of excessive pain even when touched lightly, or else he professes to feel no pain when the part is freely handled.

7. The lesions sometimes have a way of appearing to order. If, for example, the examiner says in the hearing of the patient, "I should not be surprised if in the course of a few days we find an ulcer in such-and-such a place," the probabilities are that later an ulcer will in due course appear there. Cases have been described where lesions starting at the periphery of a limb, and subjected to the control of an occlusive dressing, such as a plaster of Paris case, have appeared higher and higher up the limb as the occlusive dressing has been extended.

8. Much assistance can often be gained by smelling the eruption. The characteristic smell of many acids can be recognized, and the case diagnosed at once. Litmus-paper will often reveal an acidity which will at once arouse suspicion, for the normal exudation of a skin disease is alkaline.

In cases which are caused by hysteria, other signs, such as stocking anæsthesia and so forth, can usually be elicited, and an important point to be remembered in all such cases is that they are usually associated with anæsthesia of the palate.

Aids to Diagnosis.—The diagnosis will be assisted by a consideration of all the above points. It should be remembered that occasionally, where a strong caustic has been used, a drop may run down the skin, and leave a pear-shaped mark below the edge of the ulcer, which is lighter in colour and shows a less intense inflammation than the primary lesion. The application of a proper occlusive dressing will often be found useful, and will clear up any doubt that remains.

Dr. Stainer, of the Skin Department of St. Thomas's Hospital, has kindly supplied me with a drawing the exact size of what he calls the "tell-tale trickle tail," which occurred on the left

arm of a young housemaid, and was obviously produced by an acid. The central circular area was in a blistered condition with detached epithelium, surrounded with an irregular, erythematous border, the tail of a comma, as it were, representing the overflow of the acid (Fig. 46).

Speaking generally, the flattened, sliding epithelium of a large blister in which there are no true pemphigus-like blebs ought to make one suspect the possibility of artificial production.

Skin lesions, whether genuine or artificial, are often masked by a secondary dermatitis, which may be set up by scratching and the ingress of pyogenic organisms; these must be got rid of by the application of compresses and other suitable remedies.

The character of the lesion depends not only upon the chemical employed to produce it, but upon the mode of its application. For instance, carbolic solution in certain strengths is an irritant; pure carbolic is an anæsthetic. An application of the former will, therefore, produce a dermatitis; the latter will whiten the tissues, and if the application is sufficiently strong will produce gangrene.

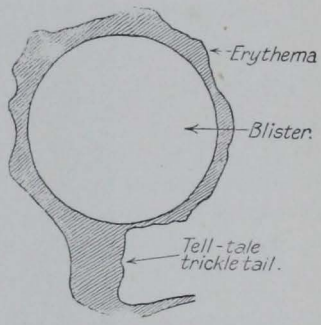

FIG. 46.—TYPICAL BLISTER IN SIMULATED SKIN AFFECTION.

Many years ago, when I was in general practice, I was attending a lady for rheumatic fever. She complained bitterly of two painful spots in each buttock. Two small patches of whitened skin presented themselves, and I at once said: These are burns with pure carbolic acid. The answer to the question whether a bedpan was being used was in the affirmative. The trained nurse who was in attendance admitted, upon my putting it to her, that she was in the habit of disinfecting it with carbolic solution. The fact that some pure carbolic had been unintentionally left on the utensil was perfectly obvious, but was denied. My patient, however, a woman of much intelligence, required no explanation. The nurse, who had had her lesson, was forgiven, and there the matter ended.

It is often very difficult to discover the means adopted to

produce the artificial lesions, for obviously the patient makes it his business to conceal in every possible way the fraud which he knows he has perpetrated.

A curious case occurred recently in which a circumscribed area of the skin in the forearm presented a suppurating, pustular eruption upon an indurated base. The patient was a nurse

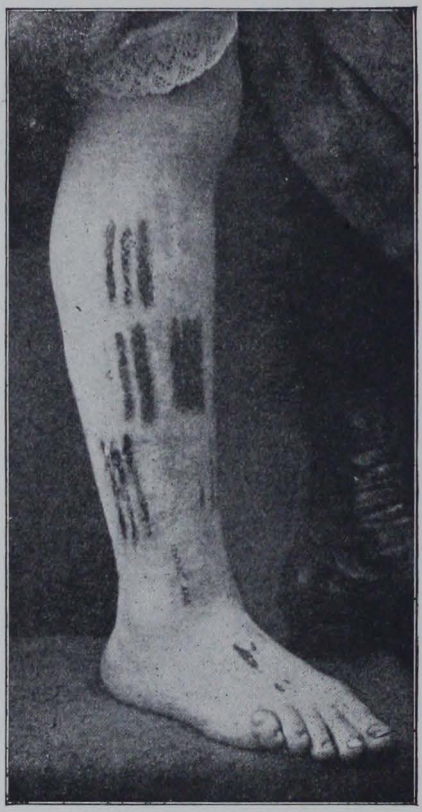

FIG. 47.—DERMATITIS ARTEFACTA.

in a hospital. The case presented many unusual signs, but the true nature of it was soon revealed (as it is in most cases when under hospital supervision) by the fact being disclosed that the nurse was a morphomaniac. She had inserted the hypodermic needle repeatedly within a small area, with the result described.

A somewhat rare but very interesting form of skin affection roduced by artificial means is sometimes brought about by

striking the skin vigorously with a hard brush, which produces a purpuric rash which has been called " hairbrush purpura."

There are physiological and psychological reasons which will suggest themselves to medical men why reasonable, sane people are found wilfully to produce troublesome, irritating diseases; but here we are more concerned with the class of case in which pecuniary advantage is likely to be gained. Sequeira states that the payment of £5 to a servant employed in a large institution as compensation for dermatitis, alleged to be caused by irritant soap and alkalies, led to a crop of similar cases coming under his notice.

As a rule an artificially produced skin lesion can be fairly easily diagnosed, but Norman Walker reminds us that it is one thing to diagnose a dermatitis artefacta, and another thing to prove it. In his " Diseases of the Skin," Sequeira gives the following note about the case of a young girl where the lesions were obviously self-inflicted:

> " The illustrative photograph (Fig. 47) shows the leg of a young girl in whom the lesions were remarkable for their arrangement in sets of three, all of the same length and equidistant. They consisted of rather deep longitudinal abrasions covered with dried blood and small crusts formed by dried exudation. Recent lesions and the stains of older abrasions are well shown in the photograph. The patient had complete anæsthesia of the palate, and right hemianæsthesia affecting the face, limbs, and trunk, with the exception of a spot the size of a shilling over the right eyebrow, where sensation was normal. It was suggested that the excoriations were produced by a three-pronged fork, but scratching by the finger-nails might have caused them."

Dr. R. O. Adamson, of Glasgow, reports the following interesting case:

> F. K.—The patient was a young lady of more than usually attractive appearance, in whom he detected nothing suggestive of the morbid tendencies which she exhibited.
>
> The illness began with " weeping eczema " of the chin, which was followed by a similar condition on cheeks, forehead, nose, neck, arms, and later the thighs and legs. The condition remained in spite of incessant treatment, and often appeared in places covered by dressings and bandages. Each patch was at first an acute erythematous flush, which rapidly suppurated and healed by the usual crust. Their shapes were various, sometimes round, often square, and not infrequently linear. They healed rapidly, but the feature of the illness was the succession of affected areas. The condition made the young lady a prisoner in the house for many months, and this was borne with remarkable patience.

Dr. Adamson remarks: "I confess the idea of the complaint being factitious never occurred to me. Those who have met with such cases for the first time may understand my want of imagination. I was supported in my sympathy for my patient by a skin specialist who diagnosed dermatitis herpetiformis."

In due course the lady went to a well-known spa, and was treated by two or three doctors, with no benefit. Eventually the case was diagnosed by a well-known dermatologist as dermatitis artefacta. A nurse was now sent in to watch the patient, but as after two months nothing was detected, fresh patches appearing, the friends of the patient were, with some difficulty, induced to send the lady to a nursing home, where she was never left alone night or day, and was never allowed to leave the room for any purpose. On the fourth day a movement under the bedclothes led to the detection of the lady's hand holding most unsuspiciously a handkerchief in which was a small ragged piece of pumice-stone. When deprived of this her cure was rapid.

Two years later the lady complained of much gastric pain and vomiting of blood. There was plenty of blood, but it clearly had never been in the stomach, for it lay as a pinkish layer at the bottom of a vessel of vomited milk. Notwithstanding the lady's attitude was one of apparent *bona fides*, after a few days' careful watching she was informed that her illness was a feigned one, and so the matter ended.

A year later obstruction of the bowels was feigned, and constipation lasting a month was averred, the falsity of which was proved by another short sojourn in a nursing home.

Unfortunately, however, we often have to deal with the following much more difficult condition. Pre-existing skin disease is sometimes wilfully *aggravated and kept up* by patients who derive a monetary benefit from continuing disability. It is an easy matter, for instance, for one whose hands have become inflamed as the result of using at his work too strong a soap, or too strong a solution of soda, to keep up the eruption by the occasional surreptitious application of the irritants which have in the first place produced it. How often does one see an old ulcer kept going, when, if properly treated, it should have healed! The only way to deal with such cases is either to apply an occlusive dressing, when this is possible, or to arrange for the patient to be under proper medical supervision in an institution.

Trade Dermatitis.—In certain trades where irritants have to be habitually used, dermatitis frequently occurs.

The most familiar examples are the erythematous, raw-

looking hands of those who habitually have to use strong alkaline solutions—for example, washerwomen, barmaids, etc. Hair-dressers who use alkaline shampooing fluids sometimes suffer. Those who use aniline dyes; French polishers who use bichromate of potassium; grocers who have to handle sugar; carpenters working with teak and rosewood; tanners using arsenic; surgeons and nurses using disinfectants; painters using lead; masons working with silicate; photographers; and workers with chlorine, tar, and paraffin, are also liable to disease. Bakers are subject to a special form of eczema, the result of constantly mixing dough. This used to be called "baker's itch," which was probably a form of scabies, the result of the introduction of an acarus from an inferior sort of sugar with which flour used to be adulterated.

A worker may have been engaged for years in a particular occupation without his skin suffering; but from some indefinite condition, such, for instance, as a lowered vitality, or it may be the accidental use of a stronger solution than usual, the skin resistance gives way, and a dermatitis is set up. Even when the condition has thoroughly healed, there is sometimes a tendency to recur in the event of a continuing exposure to the same conditions.

The characteristics of the lesions produced are that they only appear in the portions of the body exposed to the action of the caustic, and are therefore almost entirely confined to the hands and forearms. This is not, however, an absolute rule; for, if the worker is engaged with caustics in the form of a fine powder or a vapour, other parts of the body, more especially the axillæ and groins, may be affected. It must be remembered that the clothing may become soaked in the irritant, and unexpected parts of the body may become affected; for instance, a case of acute eczema was recently found on both legs in a man whose occupation was that of cleaning down motor-cars; he used a crude form of paraffin, and his trousers had become soaked with it.

The various trades are responsible for an infinite variety of skin lesions. As a rule they start with a simple erythema, followed by vesiculation, and eventually an eczematous condition is set up. When the process is chronic, we get the heaping up of epithelium, with formation of hard, horny skin,

in which painful cracks are very likely to occur. The backs of the hands, tips and sides of the fingers, and the nails, are usually first affected the disease spreading up the arms as far as the irritant is able to obtain access. The difficulty of many of these cases is that they are so frequently masked by the secondary infection caused by scratching, and the ingress of pyogenic organisms already referred to. In a suspicious case, particular attention should be paid to the ends of the fingers and the finger-nails, and microscopic examination of the epithelium will often repay the searcher.

Dermatitis from Plants.—Many plants, either from the presence of irritating hairs or from their secreting an irritating oil, have the power of producing dermatitis in people who handle them. The most familiar example of this is the common stinging nettle; but the Primula family, notably *Primula obconica*, is especially prone to do this, as also is *Rhus toxicodendron*, *Rhus venenata*, *Rhus diversiloba*, and *Laportea gigas*. Certain bulbs also, such as the Scillæ, produce an artificial dermatitis.

Primula obconica is a poisonous plant which closely resembles the English primrose; its leaf contains a number of spines which readily attach themselves to the skin and set up an acute inflammation. Many people, however, seem to have an immunity from the poisonous effects.

Laportea gigas (a tropical stinging nettle) has a fruit like a raspberry, and the small hairs on the stems and leaves seem to have the power of setting up a dermatitis.

Ranunculus acris is used by professional mendicants. The effect of its application is looked upon as a valuable stock-in-trade by the class of person who obtains alms by exploiting his sores.

The eruption produced by these plants as a rule starts on the lateral surfaces of the fingers, and spreads to the back of the hand, involving the front and back of the wrist and front and back of the forearm. It consists, as a rule, of an erythema covered with closely packed vesicles, and of a considerable amount of subcutaneous swelling. It generally lasts from a few days to two, three, or four weeks. The appearance is suggestive of erysipelas, for which disease it is sometimes mistaken.

CHAPTER XXII

MILITARY MALINGERING

Self-Inflicted Gunshot Wounds.—Where there is conscription, self-inflicted gunshot wounds are by no means unknown. When one remembers the enormous number of casualties which occur in all military engagements, the short training that many soldiers receive, and when one reflects on the excitement of battle and possibly on the clumsiness of the raw recruit, it is not difficult to make allowances, and to assume the best, rather than form a hasty conclusion which necessitates a supposition of the basest cowardice. After the battles of Lützen and Bautzen, when Napoleon fought the Germans in 1813, the Emperor thought the proportion of injured fingers was unduly large. He suspected self-mutilation, and was highly indignant. Three thousand soldiers all wounded in the hand were confined in a camp. The fact that so many young soldiers had wounds of this nature naturally looked suspicious, and several military doctors denounced the victims as self-mutilators. Fortunately, Larry, a surgeon of eminence who had himself seen much active service, declared that the wounds were genuine. He personally investigated 2,632 of these cases, putting each soldier in the position he alleged he had been in when injured, and in addition took the evidence of old non-commissioned officers who could be trusted. Most of the accused had evidence of other wounds, showing that they had fought in earnest. Furthermore, not all the accused were young; several veterans of proved valour had these injuries, which were supposed to be self-inflicted. Napoleon, who had prejudged the prisoners, was wholly convinced by Larry's report, and suitably rewarded him. Larry sent a circular letter to all the military surgeons pointing out that there was no positive sign that could enable one to distinguish

a wound inflicted by the man himself and one received in military duty.

Trench fighting brings the opponents very near to each other, and the problem of distinguishing between a self-inflicted wound and a genuine injury is exceedingly difficult. The following hints may, however, be useful:

The earlier the examination is made after the injury, the more likely will a correct diagnosis be made. It is important to notice whether the wounded man is right or left-handed, for in self-inflicted wounds the injury is generally on the opposite side to the hand most used. An injury, therefore, on the right side of a right-handed man has an initial presumption in favour of its not being self-inflicted.

The foot is sometimes shot, but the fingers or palm of the hand are more usually the sites of self-inflicted injuries. The first phalanx alone, or the first and second phalanges, may be completely blown off if the finger has been applied directly to the muzzle. The edges of the remaining stump are lacerated, not by the projectile, but by the rapid expansion of the gases at the muzzle mouth. The shreds of tissue which as a rule are left hanging near the aperture of entrance show a deep but narrow border of blackening, due to the explosion of the powder. This blackening is important, for in accidental wounding other parts at the same level besides the injured finger may be blackened, whilst in voluntary mutilation the tattooing is seen only on the injured finger. In France self-mutilation by a soldier is a capital offence. Professor P. Chavigny, from whose able article in the *Paris Médical* of March 13, 1915, I have obtained much assistance, is of the opinion that this question of blackening materially helps to determine the position of the hand when the shot was fired.

What are the signs to be expected from a point-blank gunshot wound through the palm of the hand ?

First. The edges of the wound will be blackened, and grains of the powder will be found in the epidermal layers; these may even be scraped away.

Second. At the aperture of entry and exit there will be a large laceration; the entrance is decidedly the larger.

Third. Shreds of skin are often rolled from within outwards, folded on their base, or rolled upon themselves.

Fourth. The wound is basin-shaped, with the concavity towards the aperture of entrance. There is much loss of substance, always involving one of the metacarpal bones.

Fifth. Assuming the back of the hand to be the point of exit (and this is by far the most usual both in self-inflicted and accidental injuries), the laceration is stellate, with most frequently a narrow border of tattooing.

If a point-blank shot has been fired at right angles to the muscular part of a limb, say through the forearm or thigh, or through the soft parts of the trunk, there will be a circular loss of substance from 10 to 12 millimetres in diameter; but in this case the exit is small and shows only the mark of the passage of the bullet, for the gases have already spent themselves in the tissues. If the bullet has comminuted a bone and carried spicules with it, the exit aperture will be correspondingly modified in appearance. Similarly, if a point-blank shot has been fired at the foot whilst the boot is on, the point of *entrance* is a large and star-shaped laceration, and that of exit small, with everted edges.

Wounds caused by shots through the clothes show no tattooing.

Tattooing must be carefully examined, and genuine powder stains not confused with other staining substances. Professor Chavigny points out that, in making examinations with a view to settling the question of *bona fides* as against fraudulent injuries, a very grave responsibility is put on the examining medical officer, who should never forget that he is an expert medical witness, and as such it is his duty to be impartial, and that to assume the rôle of an advocate is both unseemly and unjust.

The benign nature of many wounds caused by the modern small-bore rifle offers an opportunity of imitation by the malingerer. Two cases were admitted to hospital from the same company. One had a genuine perforating rifle bullet wound of the axilla. The other had a wound which at first sight appeared to be exactly similar, and he professed to be even more incapacitated than the genuine one. There was an entrance wound in the anterior fold, and an exit wound in the posterior fold of the axilla in each case. The difference, however, was that in the genuine case the track could be felt

in the axilla from the anterior to the posterior fold, whilst in the feigned case the wounds were limited to the skin, and there was no track or thickening to be felt between the two. Two superficial punctures had been made with a skewer or bayonet, one in front and the other behind, to imitate a genuine bullet wound.

In modern trench warfare it is not necessary for a man to blow his own fingers off. By holding his hand up he can get the enemy to do it for him. This form of self-inflicted injury can only be detected and suppressed by observation on the spot. When so suppressed, men determined not to stay longer in the trenches have adopted the plan of shooting each other in the calf of the leg. Such a wound may be relied upon to obtain the desired effect, because it may be impossible, even on recovery, to insist that a man with a *healed* gunshot wound of his calf is able to march long distances or engage in a campaign. This form of malingering also can only be detected and checked at the source. The doctors in the base hospitals are helpless.

Alleged Defective Vision.—Before the introduction of Snellen's test-types, when a large number of men were unable to read, the vision of recruits was tested by a varying number of dots on each line. It was found that occasionally a recruiting officer who had a pecuniary interest in the number of men accepted stood behind the recruit and indicated to him, by a series of taps on his back, the proper answers.

Deception is not so easy now that cards with letters of various sizes are used. If one card only is kept in constant use, recruits whose sight is defective, and who are anxious to pass the test, do so by the very simple expedient of interrogating those who have just left the examination, prior to presenting themselves. Foreknowledge of what letters are actually expected to be read in order to pass the standard is useful to those who do not wish to fail. Candidates waiting for examination should never under any circumstances be allowed to associate with those who have been examined. Full details of the detection of pretended defective vision will be found in Chapter VIII.

Indian soldiers often feign eye disease. Many have had trachoma. By inserting an irritant into the conjunctival sac,

a condition is produced which is practically impossible to differentiate from a genuine recurrent exacerbation of a trachoma by a microbial infection. The malingerer does not seem to mind the pain and discomfort of his eye so long as he obtains his object.

Tobacco Amblyopia.—The temptation to smoke too much in their hours of idleness is greater than the majority of soldiers can resist, with the result that a large number of them suffer from tobacco amblyopia. This cause of diminished visual acuity is generally not even suspected until the soldier fails in musketry drill, and he is referred to the medical officer for defective eyesight. Unless the possibility of tobacco-poisoning is borne in mind, there is the danger of an unjust accusation of malingering being made.

The condition is not difficult to diagnose, for in this disease the patient is unable to differentiate between small surfaces of red and green. If, for instance, two ordinary pinheads are covered with green and red wax respectively, and the patient is asked to name the colours, and red is not seen as red, green is seen with great difficulty, and red and green are confused, the condition becomes apparent. Another easy method of detecting blindness due to tobacco amblyopia is to place a number of small red and green beads in a saucer, directing the person under examination to pick out a few and name the colours. Again, colours shown in a bright light are not recognized; for example, a bright half-sovereign is not distinguished from a sixpence.

It should be remembered that a certain proportion of otherwise healthy individuals are colour-blind, and the condition exists apart altogether from the use of tobacco. In marked cases green and red are indistinguishable. Of 2,703 consecutive cases which I tested for colour-blindness, 2·4 per cent. were found to have some defect of colour perception. The condition is not, however, as in tobacco amblyopia, necessarily associated with defective visual acuity.

Alleged Deafness.—Deafness in one ear is a frequent allegation of soldiers, and the following method is both simple and expeditious: The soldier is asked which ear is deaf, and is then told to cover the sound ear, after which in a low voice the order is given, "About turn." If this is complied with, the attempted deception is at once exposed.

Sometimes the simplicity of the artifice is too transparent to be effectual, but most men who are posing succumb to the remark, made quite casually, that the hand may now be removed, in a tone indicating that the test is over. (See E. U. on p. 223.)

It is surprising how many people who have no necessity for lip reading watch a speaker's lips, and it is therefore advisable in carrying out this test either that the speaker's head be averted or that the lips be covered whilst the instructions are being given.

The trying life of the trenches, especially in inclement weather, often produces a recrudescence of otorrhœa, always accompanied by some degree of deafness, which improves with appropriate treatment, and many cases of deafness should be postponed for such treatment.

Alleged Sleeplessness.—An able-bodied, aggressively healthy-looking soldier persistently complained week after week that he could not sleep, and, as nothing could stop his attempts to be put on the sick-list on this ground, he was told that, as he could never sleep at night, he would do excellently for a sentry on night duty. This he was ordered to undertake; a short spell of it had a curative effect.

Displacement of the Semilunar Cartilage.—A large number of men complain of stiffness and inability to perform their ordinary duty for months after an operation for a displaced semilunar cartilage. My experience of a considerable number of these cases which have been operated upon in men belonging to the London Fire Brigade is that the results are extremely satisfactory, and that the vast majority of the men are able to return to the arduous duty of a fireman in from six to eight weeks.

It has therefore been my practice, where men have submitted to this operation, to ignore, in the absence of any physical signs, complaints of vague pains in the neighbourhood of the knee-joint. A reasonable time for recovery is six to eight weeks, the latter being more usual.

It is always difficult to deny that an internal semilunar cartilage is giving trouble, if a soldier positively asserts that the cartilage slips. In two cases I saw recently, the men were able to give me incontestable evidence of its presence by

actually deliberately displacing the cartilage in my presence so as to demonstrate the disability. In one of the cases there were no physical signs until the man's voluntary action produced them; indeed, I had had my doubts about the genuineness of his complaint. A man who is feigning a displaced semilunar cartilage will often point to the external condyle, and, if the question of locking has not already been brought to his notice (by previous injudicious questioning), he makes no complaint of it.

Synovitis generally follows the first displacement, but not always in the later manifestations.

Next to the discovery of one's own mistakes, nothing is so valuable as that of others; the difficulty in diagnosing a displaced internal semilunar cartilage is very forcibly exemplified by the following case:

> F. M. was invalided from France with alleged displaced internal semilunar cartilage, and the medical history bore evidence to the fact that the surgeon in France thought that he was malingering. When in this country, he walked with the gait of one who could bear but little weight upon his right leg. There was, apparently, pain on pressure on the inner side of the knee at the head of the internal tuberosity of the tibia. He was examined with great care by a special invaliding board, the president of which in civil life is in the consulting rank of the profession. After being put through various exercises and having elaborate measurements taken, the board unanimously decided he was a malingerer, and so reported to the officer commanding.
>
> Owing to a not regrettable irregularity on the part of the medical officer of the unit, who firmly believed in the man's *bona fides*, he was at once taken to hospital, and his desire to be operated on was acceded to; the cartilage was found to be torn, and there was a small hæmorrhage under the capsule.
>
> He made a complete recovery, and some four or five weeks afterwards I passed him into a draft on its way to Flanders.

Transparent Fraud.—A vast number of attempts to evade duty are not made seriously. I frequently notice the complacent smile of a soldier as he leaves the examination-room when he has been caught out in some transparent attempt at deception. The following are examples of attempted fraud which present no real difficulty:

> F. N., a young man who had recently joined Kitchener's Army, complained of his inability to put his left heel on the ground. He kept his foot in the position of talipes equinus, and, when instructed

to put the whole plantar surface on the ground, he attempted to do so, still keeping his heel raised, and consequently nearly fell. The medical officer of the unit did not doubt the *bona fides* of the case. Thinking the case was fraudulent, I instructed the man to get his boot, which he had left in an adjoining room, and found that both heels were equally worn. This was pointed out to the medical officer in the man's presence. He walked out of the examination-room putting both heels on the ground, with a quickly vanished hope of evading military service.

F. O., a private, was sent to a hospital at the base in France, said to be suffering from shell shock. He was apparently blind and dumb. He occasionally made sounds like the bark of a dog, and when asked a question always replied, "Ba!" He was ordered water diet for an indefinite period, the surgeon adding as an aside to the nurse: "If he asks for a cigarette, he can have it." At the end of the second day he had his cigarette, and said he could do with a little breakfast. He joined his regiment in a few days.

F. P., a private, was led in by a sergeant before the travelling medical board wearing dark blue spectacles; his eyes were tightly closed, and he groped his way with a stick. When the spectacles were removed, the lids were found slightly red, tightly closed, and bathed with a secretion, the result of chronic blepharitis.

When asked to open his eyes, he made no attempt to do so. When the lids were forcibly separated, he rolled the pupils upwards, and nothing but the lower conjunctivæ were visible. He was told with some firmness to look straight in front of him and to march to the other end of the room, and this he did unaided. He was told to play the man and do his duty, and he left the room cured.

A few minutes later I saw him outside walking with a companion, without his glasses and with his eyes open.

The comparatively mild form of malingering one sees in civil life is generally associated with some abnormal sensation. It is, however, impossible to find any excuse for a case like the following. The man was a soldier. The cost of his maintenance was probably between £100 and £200 a year. At the first scratch, in order to avoid further risk, he deliberately mutilated himself, not by a wound, but by immobilizing his arm.

F. Q. was invalided from service in France for a wound of his right hand, and what was termed "contused spine."

When first seen by the medical officer of his unit, several months after the alleged injury, nothing but a slight scar was, with difficulty, seen on the back of his hand. The whole arm was firmly bound in a rectangular splint, and he walked with apparent difficulty, with the aid of a stick. It transpired that he had applied the splint himself, and had worn it surreptitiously. When the splint was removed, the whole of the flexors and extensors of the forearm were found to

be atrophied, and so flattened that nothing but skin seemed to intervene between the radius and ulna and the splint.

The medical officer decided, after careful examination, that a deliberate attempt was being made to shirk duty, and he was brought before the travelling medical board of which I was at the time a member.

The examination of his right arm, forearm, and hand, displayed a pitiable condition. A useful and healthy limb had been deliberately atrophied as the result of keeping it in a fixed position. He complained also of pains and aches anywhere suggested to him, and fell a victim to the battery test (described on p. 485).

At the conclusion of my examination I told him that there was nothing whatever the matter with him, that he was now definitely detected in a deliberate course of malingering, that this was a military crime, the maximum punishment of which was two years' imprisonment. He was handed over to the military authorities to deal with, to whom he confessed the fraudulent nature of his conduct.

Photographs had been found on him, in uniform, wearing medals which had never been awarded to him. A tin box containing dissecting and Spencer Wells forceps, needle, and other trifles, were found on him; these he hawked about to create interest in or sympathy with him. It appeared he had invented a story that his father, who was a fleet surgeon, had been drowned in action.

He was not tried or punished, but was sent out to France with the next draft, from which he soon returned with his old complaint—a " contused " spine !

It is difficult to believe that a strong, healthy man would deliberately make himself sick two or three times a day, for weeks on end, for the sole purpose of evading military duty. The following case, however, shows the possibility of such an occurrence, and demonstrates an amount of cowardice which is, fortunately, unusual:

F. R.—One of my colleagues at the Southall Auxiliary Military Hospital asked me to take under my care a soldier who had been in the hospital for eleven weeks, persistently vomiting after food of any kind. The usual treatment—blistering, rest in bed, milk diet, and so forth—had entirely failed to cause the symptoms to abate The soldier showed no signs of illness, and was suspected of malingering.

Upon examination I could discover no evidence of ulceration, or of any other disease. The man seemed well nourished, and to be enjoying hospital life.

I ordered that he should remain in complete seclusion; the bed was screened off, and no visitors were admitted. He was allowed no other food than milk, no cigarettes (of which he was in the habit of smoking an enormous number), and was to be given a rectal injection every morning. After two days of this régime the sickness had entirely disappeared, except on one occasion. Whereupon instructions were given that, in the event of the sickness recurring,

he was to have no food of any sort until I saw him again, and I casually remarked to the nurse in his presence that I hoped to call again at the hospital in a few days. He was never sick again, was discharged twelve days later, and joined his regiment.

The following case illustrates the extreme suggestibility of a neuropath, and the necessity of firm treatment in such cases. The rapid recovery throws a strong suspicion of a deliberate course of conduct intended to result in evading military service.

F. S. was an inmate of the Southall Auxiliary Military Hospital, and had been under the care of one of my colleagues for many months. He had double pneumonia, from which he recovered in a few weeks. During the next two months he was under treatment for the following conditions:

An hysterical attack in which he threw himself about the bed, hung his head over the edge, and moaned. Every night before the lights were turned out he sat up in bed and clutched at the air with his hands, and complained to the night nurse that people stood round his bed at night.

On one occasion he appeared to faint, but the nurse reported that it was a pretence. The patient in the next bed suffered from the rigors of the cold stage of malaria. F. S. had rigors soon after, which lasted nearly four hours. He then complained of sciatica. Next he alleged he had blood-spitting, the character of the blood expectorated giving rise to grave suspicion. He next alleged that he passed blood, which the night nurse denied. After seeing a patient in the ward having his ears syringed for otorrhœa, he complained of deafness. Finally he vomited violently, in consequence of which he was screened off from other patients.

After three months everyone got tired of him, and he was transferred to my ward.

When asked to walk he shook violently. With the support of two nurses he moved one leg slowly after the other, with his knees bent in a crouching position. He was dressed in a pair of loose night socks, slippers, and a dressing-gown, and sat smoking cigarettes all day in a bath-chair. In spite of his many afflictions he looked, slept, and ate well.

After careful physical examination, I satisfied myself that there was no organic basis for his complaints. His bath-chair was taken from him, all tobacco and cigarettes were stopped, the nurses were instructed not to take his case seriously. When forced to walk with the assistance of two nurses, he collapsed on the floor, a heap of inanimate humanity. He was, however, picked up, and *made* to walk with my assistance only. When asked to flex his knees and resist my straightening them, he obviously made no effort to do so. It was therefore pointed out to him that his muscles required the stimulus of an electric battery, and the current was applied very vigorously. He then brought his flexors into strong action.

When next I saw him, *five* days later, he was dressed in his uniform, with his putties neatly put on. He could now walk alone, although he did so without raising his feet, moving them as if he were skating.

The next I heard of him was that he had been surreptitiously playing football in the exercise-ground. Within three weeks from his drastic change of treatment I was able to discharge him as fit for duty, and return him to his regiment.

Everyone who has anything to do with soldiers must be impressed with their amazing courage. It is not surprising, however, when five million men are being dealt with, that in so large a number a few despicable cowards may be unearthed, of which the following case is a good example. The ordinary malingering soldier is not difficult to expose. The really difficult cases are those in which the determination to remain unfit manifests itself only by the semi-conscious counterfeiting of nerve disease. The thin line which divides genuine functional nerve disease and shamming is exceedingly difficult to define. It is usual, and on the whole I think right, to be slow in believing the worst of these cases. But every now and then a case makes one, as it were, stop and think, and appreciate that a hill-top point of view is the only safe course.

F. T. joined the army in September, 1914. He was fully trained, and in six months went to France, where he at once put himself on the sick-list and was admitted into a base hospital, his complaint being diagnosed as sciatica. As soon as he ceased complaining of sciatica, he developed spasmodic torticollis; he was sent back to England, treated by means of radiant heat, etc., and eventually sent to the Royal Bath Hospital at Harrogate. After some six weeks' treatment he recovered from the torticollis, but developed a spasmodic contracture of the right shoulder and muscles of the forearm; for this he was massaged and had high-frequency treatment. Later he was transferred to a different hospital, where the same treatment was continued. Subsequently he was sent to London, where he received a course of massage.

Early in December, 1915, nine months from the date on which he had first complained on being sent to France, he came under my observation as a member of the travelling medical board for the London District. His right wrist was bent at right angles to the forearm; his hand was tightly clenched, and held so firmly that it seemed as if the wrist were ankylosed. The case was obviously a functional one, and I suggested to the man that I should obtain his admission into a hospital, and get him cured, but he at once said he did not wish to enter a hospital.

Fortunately his consent was not necessary, and by arrangement with the medical officer of his unit he entered the Maida Vale Hospital

for Nervous Diseases. Before doing so he did his best to persuade the medical officer that further hospital treatment was unnecessary, stating that he was now able to straighten his arm, and that he was applying a splint to keep it straight. I insisted, however, upon the order being carried out. In the institution at first he progressed slowly. He was told that if he recovered wholly within fourteen days I would arrange for him to be again brought before the travelling medical board, when I would use my influence to have him classified for home service only.

Before the fourteen days had elapsed, in my presence, he suspended his weight on a trapeze and pulled himself up to his chin on it, and lifted a 28-pound weight with his paralyzed hand. In short, he wholly recovered. He is now doing full duty with his unit.

This case was one of deliberate malingering, with a mixture of functional disease and an obvious desire to avoid active service. When he appeared before the travelling medical board for a final decision of his case, I noticed that there was a tendency to assume the old paralyzed position; but he was sharply called to order, when his arm again assumed the normal position. That this should have happened under these circumstances—for he knew I was in possession of the facts of the case—is strong evidence of the neuropathic character of the case.

The fact, however, remains that this man, by assuming one functional nerve disease after another, prevented himself from facing the enemy ; and he only recovered when the bargain was made that he would not be required to fight, and when it was brought home to him that the true nature of his case was diagnosed, for I did not scruple to tell him quite frankly that, in my opinion, he was an arrant coward. The direct, forcible treatment of his mental condition, and an appeal to his lower instincts, was immediately curative, and of infinitely more value than the radiant heat, high-frequency treatment, three months at Harrogate, and the application of massage.

" Mist. diabolica " is often as miraculous in its cure as the holy water of Lourdes. One dose cured a soldier of " deafness, pains in his back and side, pneumonia of eight weeks' standing, inability to feel his feet, and difficulty in standing." The sufferer lay a helpless wreck for hours before he had a dose, after which all he wanted was water to drink, and permission to join his regiment as quickly as possible.

I have no personal experience of any of the following devices, and merely mention them so that the list of all known attempts at malingering may be recorded within the compass of this volume. To be forewarned is to be forearmed.

Simulation of Nephritis.—French army surgeons state that the introduction of white of egg into the urine, or by injection

into the bladder, is not unknown. It renders the urine at once albuminous. After an injection into the bladder the amount of albumen steadily diminishes for twenty-four hours. A modification of this trick is to have a small quantity of white of egg in the pocket, and, when the soldier is asked to micturate, to slip his finger into his pocket and thus get it coated with egg-albumen, which he washes off his finger by means of the jet of urine, as it passes into the receptacle for chemical examination.

It has been suggested that a certain number of cases of nephritis are intentionally provoked by such drugs as cantharides and chromic acid, but this, if true, must be very rarely attempted.

By drinking a very concentrated concoction of carrot the urine is made to have the appearance of hæmaturia.

Artificial Œdema and Abscess.—Water is sometimes injected, by means of a hypodermic syringe, beneath the skin to simulate œdema. Fixation abscesses are determined by the injection of paraffin and turpentine; the former is said to produce a mild abscess, the latter to lead to a much more serious condition. Such abscesses are to be found in the inner aspect of the left lower limb, which is most easily operated on by the patient himself. If suspicion is aroused, a central puncture surrounded by a strictly localized inflammation may lead to detection. There would be no lymphangitis, rise of temperature, nor any constitutional disturbance.

Artificial Conjunctivitis.—Men on the way to the front sometimes provoke a conjunctivitis by means of snuff or powdered ipecacuanha, small grains of which may be detected on the conjunctiva of the lower lid by the use of a lens. On p. 215 a note will be found of a case in which small grains of pepper were found embedded in the palpebral mucous membrane.

Purulent conjunctivitis is easily induced by tobacco-juice or a small particle of lime. In the latter case, however, a local patch of inflammation would betray the fact that at one time a foreign body had been in the conjunctiva. The absence of the gonococcus will increase suspicion.

Artificial Erysipelas.—An erythema surmounted by vesicles, accompanied by a considerable subcutaneous swelling, may be

produced by various poisonous plants, such as *Primula obconica*, croton oil, the tropical stinging-nettle, and others (see Chapter XXI., p. 364).

Simulated Dysentery.—Forgues reports an epidemic of dysentery caused by one of his orderlies, who was in collusion with the men, and gave them enemas of saturated solution of alum followed by the introduction into the anus of pledgets of cotton steeped in alum. The irritation produced hæmorrhagic diarrhœa and tenesmus, which simulated dysentery.

Blood-Spitting.—It is not difficult to cough up blood by pricking the tonsils or pillars of the fauces, nor is tonsillitis difficult to promote by gargles. In this as in the foregoing attempts at fraud, a short residence in hospital leads to early detection.

A soldier occasionally reports his disease as "N.A.D.," unaware that it stands for "No appreciable disease."

Causes of Malingering in the Army.—The cases of malingering which have been detailed in the former chapters of this book are those in which there is little hope of cure except by means of compulsory return to work. Most of these before coming to me, had passed months, sometimes years of idleness. Many had been previously examined by other doctors, with the result that they fully appreciated that their mental attitude was understood, and in consequence they, too, often adopted one of pronounced antagonism. Many would probably have been induced to return to work before idleness became a profession, had they been treated judiciously by a mixture of firmness and kindness, and a few weeks' extra sick-leave been allowed at an early stage, even though not absolutely necessary. If, in addition, at the psychological moment an appeal had been made to their self-respect, a proportion at any rate of these cases would have returned to work, especially if light work for a time had been procured. Shamming cases require delicate handling, for they can readily be converted into out-and-out malingerers. An abnormal mental outlook is much more difficult to rectify than a merely physical condition.

This is especially true when we are dealing with soldiers; for most, if kindly treated when they first begin to exaggerate, are less likely than the industrial worker to develop a spirit

of antagonism. Timely and judicious advice often averts that determined and obstinate attitude of mind which it is so difficult to deal with, even in the army, where discipline is at its highest level.

It should never be forgotten that a hasty judgment should not be made merely because a soldier is detected in an obvious over-statement of his case. The ordinary soldier has little capacity for stating his disabilities when before an examining board. Being naturally anxious to make sure that his complaints will receive adequate attention, he often exaggerates them. Allowance should be made for his diffidence before superior officers whom he may never have seen before, and for his incapacity to express himself clearly owing to defective education. I have seen men who, though genuinely deaf enough to render them wholly unfit for active service, yet think it necessary to exaggerate and act as if they were stone-deaf. Many soldiers complain of a number of trivial complaints, each of which when investigated proves to be without sufficient foundation, and an inexperienced medical officer may be led to assume that a deliberate attempt at imposture is being made. A careful survey of the man as a whole, however, often reveals the fact that he is really unfit for the strenuous marches he is so often called upon to undertake on commencing military training. Lads of poor physique, who have scarcely ever walked five miles at a stretch, are, on joining the army, frequently called upon, without any graduated preliminary training, to undertake long route marches and strenuous physical exercise for which they are at the time wholly unfit. So many young men use bicycles that comparatively few (unless obliged to do so on account of their occupation) ever walk even five miles a day on a hard road. This constitutes a difficulty in the training of recruits. A very large number have distorted or diseased feet, generally the result of bad footwear, conditions which add greatly to the difficulty of training. It takes at least three months to train even normal feet into good marching condition. Big men over thirty years of age, with tendency to fatness, are not easily trained into good condition; they are recognized as bad stayers, and unequal to a great effort, which may be necessary on occasion. When men of this stamp fall out of the fighting line from

wounds or sickness, it is most difficult to get them to make a second effort. Experience shows that they become a little stiff, and find themselves at a disadvantage when drilling with younger men. Either because they do not recognize the real cause of their incapacity, or are unwilling to admit it, they allege, as the reason of their failure to reach the standard of physical fitness, such ailments as rheumatism, shortness of breath, etc., conditions which, upon careful examination, are found non-existent. The real difficulty, however, is that their military training has not been sufficiently gradual.

Up to the year 1847 the term of service for men enlisted in time of peace was for life. Malingering was common, for there was no other way of escaping from what was little less than a life-long slavery.

In 1847 the Army Service Act was passed, which, as amended in 1849, limited first engagements to ten years for infantry, and twelve years for cavalry and artillery, but allowed re-engagements for twenty-one and twenty-four years, with the right to pension.

In 1870 the Short Service System was introduced. As a result of these changes in the terms of enlistment, malingering diminished—indeed, practically disappeared, except where kept up by mismanagement. Command became more difficult to officers accustomed to the old routine, but more easy for those gifted with the capacity to manage men.

Now that Compulsory Service is law, malingering in all its many forms will probably reappear to a considerable extent; for large numbers of men admittedly unwilling to face military discipline and other hardships will have to be dealt with. There will always be men who are born lazy, or born gun-shy, who have to be dealt with and made the best of. Too much work and too little food is better than too much food and too little work, both for morals and muscles; but it is rather a difficult doctrine to preach, since wealth and pleasure are the aims of most of us.

Lady volunteer helpers are unconsciously responsible for much of the exaggeration which takes place in voluntary aid hospitals. The devotion of the amateur nurse promotes morbid introspection.

The wearing of costly and complicated apparatus always

has a bad effect upon the wearer. The fact that a wounded soldier is a centre of interest makes him exaggerate his disability. Drs. Déjèrine and Bergonié point out that "If the functional activity (of injured limbs) were brought sooner into play; if doctors were less liberal in ordering walking-sticks and crutches; if, in short, there was less treatment of a kind tending to fix the attention of the wounded man on his hurt, there would be less exaggeration."

In military service two classes of simulators are often in evidence. The first, comparatively rare, is the man who simulates disease, and the second is he who grossly exaggerates an existing disability. All neurasthenics exaggerate everything, and the stages between unconscious exaggeration and deliberate malingering are very gradual. A self-centred man passes easily and unconsciously from one to the other; as Duprez says, "The psychopathic process generally follows a course which may be summed up in the following words: Commotion, emotional suggestion, exaggeration, simulation, and a claim for compensation."

CHAPTER XXIII

HERNIA AND MALINGERING

Frequency of Fraud in Rupture Claims.—Occasionally patients present themselves with swellings in the groin, usually glands or cysts, and claim that these are herniæ resulting from traumatism. Even a cursory examination, of course, reveals the true nature of the case. It is, however, very common indeed for a workman to state that he is suffering from hernia as the result of a strain which occurred whilst he was at work. Such cases are not only common, but very difficult to deal with, for, of course, it is open to any workman who has a hernia to try to make capital out of it. It is very easy to make up a history, and, in most cases, where time has elapsed, we have only the man's statement to depend upon.

The average layman has very little knowledge of how common rupture is, and how much hard laborious work is done day by day by men suffering from this complaint ; and very few are aware how much fraud is attempted in connection with claims for rupture. Barnard states : " There is probably more fraud connected with claims for rupture produced by accident than can be found in all the other cases of fraud for the rest of the body. Of the cases that claim compensation for damages for hernia as being caused by a sudden strain, probably not one in ten is genuine."

In view of the frequency of this disability among workpeople, all employers of labour would be wise to have a medical examination made before employing a man, and insurance companies might well suggest this as a general principle, so that employers may know, amongst other things, whether an employee is, or is not, free from rupture when he is engaged.

I propose to deal with this matter under three heads :

1. Cases in which the hernia may fairly be attributed to traumatism.
2. Those which may be definitely stated to be not attributable to strain or accident.
3. Those in which the cause is uncertain.

1. When the Hernia may fairly be Attributed to Traumatism.—The patient will give a history like the following: that, while undergoing a strain, such as lifting a heavy weight in the course of his employment, he suddenly felt something wrong in the groin; or it may be that he slipped whilst carrying a weight; or was following his usual work under strained conditions, as, for example, if he had his legs widely separated; or if, being an old man, he was put to work too heavy for his years. He will complain of pain of such severity that he had to cease work. On examination, the hernia will first of all be found to be a *small* one, not larger than a small lemon. It will be more or less painful on handling, the abdominal walls may be good, the other possible hernial openings will be closed, and there will be no marks of a truss having been worn. The hernia may from the outset be strangulated, in which case there is marked pain and vomiting, collapse, etc., and an operation will have to be performed forthwith; and tears in the abdominal wall may be found, with extravasation of blood.

The following is a typical case of rupture produced whilst at work:

> C. Z., an employee, whilst in a sitting position, reached up to pull down a board, when his left foot, which was stretched out against an iron bar, slipped, and he at once felt a sudden strain and an acute pain in the left groin. His story is that he worked for the remainder of the day, being in pain all the time, and had to relieve himself by sitting down occasionally when he could. On returning home, at the earliest possible moment, he laid down on his bed, and next day, being unable to go to work, he consulted a doctor, who did not examine him, but gave him a lotion, and told him to rest in bed. This somewhat unusual method of treatment was continued for four days. It would appear that during this period he was actually sick, and had abdominal pain, which he described as "dull, deadly, and dismal." His statement was that there was no swelling, but that he noticed a hardness in the neighbourhood of the groin, and not unnaturally being dissatisfied with what may be euphemistically described as the expectant treatment he was receiving, he changed his doctor, and applied to a hospital, where, later on, he was operated upon.

There is no doubt that this man narrowly escaped with his life, for the symptoms clearly pointed to a partially strangulated hernia.

The interesting point is that there is no doubt about the exact time when the rupture did, in fact, take place. The symptoms were, from the very first, of an urgent character; a less plucky man would sooner have demanded efficacious treatment.

The Departmental Committee on Compensation for Industrial Diseases which sat to inquire what diseases should be scheduled as arising out of and in the course of employment, reported as follows:

"The evidence which we have received from authorities of eminence is definitely to the effect that hernia may, though very rarely, be due to a sudden strain, in which case it would be the subject of compensation, if caused by the employment, as an accident. But what usually happens is that some cough or particular strain brings down a little farther a hernia, which has been slowly developing, so as first to make it prominent and attract attention."

If a rupture really came down suddenly, as is so often described, the man would be so ill from the bowel or omentum being nipped that he would then and there be in imminent danger of his life, and would probably require operation straight away.

Direct Inguinal Hernia.—A direct hernia is one which passes through the external abdominal ring, but only travels through a portion of the inguinal canal. It is generally small, and never congenital. This form of hernia is somewhat puzzling, as there is a distinct external evidence of hernia, but the internal abdominal ring is found closed on palpation. It is always due to direct violence.

2. **Cases which may definitely be said to be not Attributable to Strain or Accident.**—On examination, the following points will be noticed: First, the hernia is a large one. It descends into, or partially into, the scrotum; it is painless to handle; it either slips back easily into the abdominal cavity, or it is wholly or partly irreducible, without symptoms of strangulation. In the former case the ring will be found to be large,

and the inguinal canal straight; in the latter case the hernia probably contains omentum, and is irreducible owing to the presence of old-standing adhesions, possibly the result of repeated attacks of inflammation due to the presence of an ill-fitting truss. The abdominal walls will be weak, and may be overladen with fat, and the other hernial openings may show evidence of laxity. Such a series of points marks a hernia of long standing, which has come on gradually, and has become more and more marked in the course of time, and cannot under any circumstances be fairly described as due to an accident. The skin may show some degree of pigmentation, consistent with the pressure of a truss, which may have been left off for the day.

The following is a typical case wherein hernia, alleged to have been *due* to accident, was shown, on examination, to be of old standing:

> D. A., an employee of a large public body, put himself on the sick-list, and obtained a medical certificate to the effect that he was suffering from an inguinal hernia *produced in the ordinary course of his work.* It was stated to have occurred on a certain date at a specified hour. Now, what were the facts? The man worked for a fortnight after the injury; he did not complain at the time—indeed, he only mentioned it casually to his doctor, who was called in to attend to his wife a few days before he was examined. The appearance of the hernia, which was large, the history of no pain, sickness, vomiting, or inability to work at the time of the alleged seizure, made it impossible to believe that this was, in fact, a hernia of recent origin—indeed, it was evident he had had it for years, and the fact that some few months before he was sent back to work at the point of the bayonet for deliberate malingering over a trivial complaint added considerable weight to the opinion formed.

This second group is by far the most frequent in claims for compensation, but between these two classes there exists another:

3. **Cases in which the Cause is Uncertain.**—This is an intermediate, debatable class, in which there is a marked predisposition to hernia, with a history of a slight strain which can only be considered as a *contributory* factor in the production of the hernia.

A keen controversy has raged between those who assert that, since hernia cannot occur without the pre-existence of

a hernial sac, *all* ruptures should be classed as diseases and *none* as due to traumatism, and their opponents, who, whilst acknowledging the necessity for the pre-existence of a hernial sac, nevertheless hold that, without strain, the patient might quite well have gone through life without ever developing any hernia at all, and that, therefore, the hernia so caused should be classed as a disability due to accident.

In these debatable cases patients generally give the following history: that, as the result of some unusual strain in the course of their work, they felt something give way in the groin. They complain of very little or no pain, and do not cease work. Another equally common history is that the workman accidentally finds a swelling which is painless, and which does not necessitate absence from work, and states that a few hours or days before the occurrence of the tumour he underwent some special strain or accident, and he is firmly of opinion that the swelling is the result of the accident.

On examination, a small rupture is found, easily reducible, as a rule, and not painful to handle, with a small ring, and no sign of the use of a truss.

From an anatomical standpoint these cases present no difficulty; the real difficulty is that, unless an operation for a radical cure is performed, the tissue changes cannot be sworn to.

A recent rupture has a thin, transparent sac which has been compared to tissue-paper. There is no mistaking an old rupture as seen when the radical cure is being performed. The sac, instead of being like tissue-paper, is thick; the omentum, if present in the sac, has changed from a delicate thin membrane into a thick, brawny mass containing swollen veins, and is often adherent to the sac. The opening through which the rupture passes becomes circular, large, and patulous, with thick and rounded edges, and the pressure from above displaces it somewhat downwards. Not infrequently large masses of fat are found in the sac, which, judging from their relative size compared with that of the neck of the sac, must have grown there. An old sac is always thick and adherent to the surrounding tissues.

Now, what has happened has been as follows:

There has been a natural predisposition to a hernia, a pre-

existing sac, reaching, it may be, as far down as the bottom of the scrotum, like the finger of a *new* glove, closed in the sense that a finger of a *new* glove is closed (Fig. 48, left side), and into the opening of which a knuckle of bowel has been slowly insinuating itself for some time (Fig. 49, right side). A series of strains occur, and gradually, by each succeeding strain, the glove-finger becomes opened up, and the rupture, from being unsuspected, at last, most likely during some exertion, more or less suddenly becomes noticeable.

It has, in fact, been slowly coming down through a patent funicular process, as I believe it always does, and at last bulges on the surface, and so the hernia is discovered. But this is not really an accident; the only accident is the accidental discovery of the swelling. Some are born to be ruptured; some achieve rupture; few, very few, have rupture thrust on them. The question how far such a rupture can be called "accidental" is an exceedingly thorny one; for all grades of cases occur, from those where there has been a considerable strain, and in which, therefore, the accident factor predominates, to those where the strain has been very slight, and in which, therefore, the congenital factor is by far the more important.

The diagnosis in these cases turns very largely upon the history, and history in a case of this sort must always be an unsatisfactory thing on which to decide so important a point.

Leading questions in these cases should never be put. The extra hard work and the accidental discovery of the hernia are so intimately associated in the mind of the working-man that the next step, of naming a definite place and time within working hours, is one which (although of the utmost importance from the point of view of the employer) the workman may very readily take, and once taken persistently adhere to, without his necessarily having any clear recollection of the sequence of events. The *post hoc ergo propter hoc* argument is one which is accepted by most working-men as being a correct method of reasoning, and in any case a justifiable one. What more natural than that a working-man should say to himself: "My work is very hard at any time; lately it has been extra hard—I now have a rupture. I had no

rupture before; it *must* have occurred at work. If the employer *must* know the exact time and place, why, it is not my fault if I am forced to supply it."

A dishonest man has no difficulty. He knows, or if he does not his friends or solicitor will tell him, that unless he can locate a definite time and place when, whilst at work, he felt the pain and noticed the swelling develop he cannot claim. The real difficulty lies with the honest man, who will say at first quite frankly that he knows nothing about it except that he discovered that he was ruptured, and thinks, not unnaturally, that it must have been the hard work he had recently been engaged in which caused it. He is sometimes involuntarily, as it were, made to fix a time and place by the desire of the medical examiner to know if a definite time and place can be ascertained.

Now, from a surgical point of view it may be that the bowel, as the result of hard, laborious work, has gradually entered a pre-existing congenital sac, and that in this sense it is true that the hernia, when discovered, has been to some extent the result of a gradual dilatation of the sac and of the bowel entering it, which of course may have been caused by extra strain at work or otherwise.

The application of the Workmen's Compensation Act, however, depends upon the ruling of the Courts, and the Court has determined that, for a rupture to be an accident within the meaning of the Act, it must arise " out of and in the course of the employment," and therefore to substantiate his claim the applicant must be able to state the time and place of its occurrence.

It is generally possible in the case of an accident to say when and where and how it happened, and the Act provides that this information should be given to the employer as soon as possible after it occurs. This is obviously reasonable, because otherwise the employer might have no means of investigating the claim, and without such an opportunity he would often find himself in a difficulty.

The points, apart from the history, which distinguish a recent from an old-standing rupture, may be tabulated as follows:

	Old Hernia.	*Recent Hernia.*
Reducible ..	Easily and painlessly, unless adhesions present, and even then no strangulative symptoms.	With some difficulty and pain; or if irreducible, then symptoms of strangulation present.
Abdominal ring	Circular, patulous; thick edges and ring displaced downwards.	Comparatively narrow; evidence of tearing or hæmorrhage.
Truss mark ..	May be seen.	Absent.
Other hernial openings	Apt to be patulous.	Normal.
Abdominal wall	Relaxed and often fatty	Normal.

The following signs would appear during an operation for radical cure:

	Old Hernia.	*Recent Hernia.*
Sac	Thick and tough.	Thin like tissue-paper.
Adhesions ..	Present both in and outside sac.	Absent.
Omentum ..	Often protruded, thickened, and may be adherent and irreducible.	Generally absent from sac.
Fat in sac ..	Often irreducible, and must have grown there	No mass of fat in sac.

Where there has been a definite strain or accident likely to cause such a condition as rupture, if the man complained of it either at the time or very shortly after, and at once reported the alleged strain or accident, and can call witnesses as to the fact, then, in spite of his predisposition, it could be successfully argued that, had it not been for the strain, he would have

escaped rupture, and that, therefore, the rupture was due to accident, and not to disease.

The following illustrates the difficulty of these cases:

F. V. stated that about May 1, 1913, he felt something "give way" in his right groin whilst lifting a weight. His statement was that he reported the alleged accident the next day; he was not sent for examination until thirty days after the occurrence. The size of the hernia, which was that of a small hen's egg, made me doubt the accuracy of the history, and I recommended that an opportunity should be given me of attending the operation which he proposed undergoing for the radical cure, a few days later.

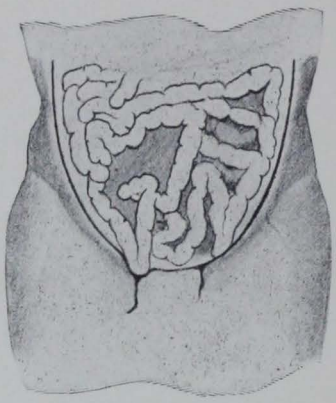

FIG. 48

When the hernia was cut down upon, an ordinary pyriform funicular sac was exposed. It was quite evident it must have been there for many years; indeed, it was probably congenital. There was nothing in the sac at the time of the operation, nor was it much thickened. There was no evidence, therefore, to show how long the sac had been actually occupied by the hernia. It was quite possible, even probable, that the alleged strain of May 1 had caused a piece of bowel or omentum to descend for the first time into the preformed sac. The fact that there was no adherent omentum or thickening of the wall of the sac gave additional support to the man's contention. On the other hand, there was some matting round the neck of the sac, such as might have been produced by the wearing of a truss for some considerable time. However much one suspected it, it was impossible to say definitely, from the evidence of the thickening alone, that a truss had in fact been worn. The case was therefore treated as an accident.

Too often herniæ from which men have suffered since birth, and which have been restrained by efficient trusses, are held

to have been suddenly aggravated during work at a particular hour on a particular day. Even an efficient truss in time wears out. Few working-men so afflicted quite appreciate the danger of going without a truss temporarily, and it may very well be that trusses are often laid aside. Frequently in the course of a large number of physical examinations of the working-classes I come across men who have ceased to wear their truss for no better reason than that it became worn out ; and a large number of those which are in use are valueless, either from loss of elasticity or because they obviously never fitted properly.

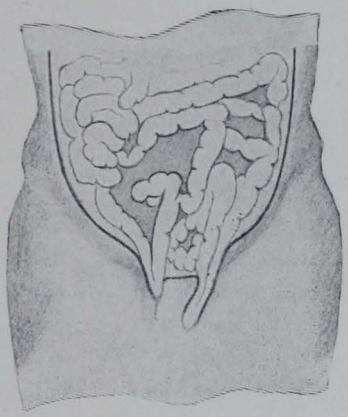

Fig. 49.

It must be remembered that members of the working-class are most unobservant of their persons ; for instance, men go about totally blind of one eye without the least suspicion of it, until, for some reason or other, the eyesight is tested ; others are quite unmindful of tumours or swellings.

This can be the only explanation of such a case as the following :

D. B.—A boy employed by a large public body was sent to me for examination. His story was that a month previously, whilst lifting a large drum of oil from the floor on to a bench, he fell and strained his left side. He consulted a doctor the next day for a large swelling in the left groin, which he stated had never pained him. He did not go off duty. He was obviously straightforward.

On examination, I found two large, abnormally patent, internal abdominal rings, which admitted the tip of the forefinger easily, on either side. It was arranged that he should obtain a double truss, and continue at work pending admission to hospital. There was some

considerable delay in obtaining admission, but four months after the accident he was operated upon by a hospital surgeon. My deputy, who was present at the operation, informed me that it revealed an old sac of at least three years' standing, containing an adherent strip of omentum 3 or 4 inches long. The sac did not quite reach the testicle. There was congenital thickening round the neck of the sac.

Is a Man wearing an Efficient Truss fit for Work?—In 1911 I obtained statistics from Dr. Finlay senior, who has a large experience of examining men engaged in heavy manual work. Out of the 20,680 cases he examined, 524 had rupture. Of those ruptured he passed 371, as they were wearing efficient trusses. The remainder were rejected because they either refused to wear a truss or submit to operation.

Dr. Finlay junior had a similar experience. He informs me that in the three years subsequent to 1911 he conducted approximately 15,000 medical examinations, and that of these 306 had hernia, 246 of which were passed, wearing efficient trusses, for hard manual labour, such as able-bodied seamen, deck hands, stewards, firemen, etc.; and he tells me that no complaint has reached him of any of these men having been found unsatisfactory on account of rupture.

It is fair, however, to say that these later figures are not absolutely accurate, because, as Dr. Finlay junior points out, some of the men originally examined by his father would subsequently, on undertaking fresh voyages, be re-examined by him. I was unable to ascertain the exact number. However, if the original statistics alone are relied on, they bear eloquent testimony to the ability of ruptured working-men for hard laborious work, provided an efficient truss is worn.

The following reports may be of interest, as they deal with cases in which attempts were unsuccessfully made to prove in Court that, because men with ruptures had to wear trusses, they were consequently unfit for work.

As will be seen, it was not denied that the trusses were efficient, but the contention was that the mere fact that a truss had to be worn was in itself evidence of incapacity for work.

History.—D. C., whilst lifting a weight on board ship, stated that he felt a rick in his right side. It appeared that he did not complain at the time, but went on working for two days, suffering, it was alleged, pain in his right side meanwhile. His statement was that he consulted

the ship's doctor two days later, was put on the sick-list, was laid up for a fortnight, and then resumed work for nine days. When the ship arrived in port he saw the company's doctor, who advised an operation. He was then wearing a truss. He then consulted a doctor privately, who at first advised operation, but upon D. C. obtaining a more satisfactory truss, stated that it was not necessary.

Examination.—The truss he was wearing when he presented himself for my examination was rather large and clumsy, but for a man of his class, engaged in the rough-and-tumble of work, the use of a truss of that kind, if a mistake at all, is one on the right side.

It was evident that if D. C. continued to wear the truss, and kept it properly applied, the rupture could not come down. Indeed, it was a mechanical impossibility for it to be brought down whilst he wore the truss. He was made to kneel and jump on to his feet, and to come down suddenly on his heels, and the effect was watched. The truss remained perfectly effectual. In fact, this man's disability amounted to nothing more than the inconvenience which everyone must feel when first wearing an appliance of this sort. He stated that he had had the truss he was then wearing for two and a half months, but judging from its very cleanly appearance and the absence of perspiration stains upon the leather lining of the pad, I was of opinion that, if he did wear the truss at all, he did so at very rare intervals.

With regard to the question of operation, it is open to anyone with a rupture to be operated upon. The risk nowadays is comparatively small, but where, as in this case, an efficient truss was worn, there was not the slightest occasion to urge an operation, especially as the certifying surgeon of the company was prepared to certify him fit to go to sea. His lungs, heart, and kidneys were all healthy, and there was no physical reason why he should not undergo the operation. He stated that one of his relatives died under an operation, but as the operation in question was performed in consequence of a perforated enteric ulcer it was difficult to see why a fatal result in such a case should deter him from undergoing a simple operation for hernia. After a patient hearing the Judge, who had with him a medical assessor, decided that there was nothing to prevent the claimant returning to work as an able-bodied seaman.

One should remember that a large number of the labouring-classes now at work are in this man's condition.

D. D., who was sent to me for examination, told me that whilst at work at the docks a handspike he was using struck him on the thigh and abdomen. He stated that he fell on his head, cutting his lip and face—these soon healed—and that the only other injury he received was bruising of the thigh, with pain in the upper part of his stomach. Subsequently he consulted a medical man, who bandaged his injuries, and continued to see him every three weeks for a period of eleven months. The allegation was that he had a hernia which was caused by this accident, and that prior to the

occurrence he had no hernia, and that in consequence of the hernia he was unfit for work.

Examination.—In this case the question as to when the claimant first complained of the hernia was of paramount importance from a medical point of view. He made distinctly contradictory statements to me. First he stated that he did not complain of the rupture until four days had elapsed; but when I was about to take this down in writing, he said it was on the second day he complained to his doctor; subsequently he said it was a week after the accident that he obtained a truss from his doctor.

On physical examination a right-sided hernia was found, which from its appearance had probably been present for some time prior to the date of the accident. D. D. appeared quite to understand his position with regard to operation, which he firmly, almost aggressively, declined. As he was wearing an efficient truss, he was fit for any kind of laborious work that could possibly be demanded of him. A man with a rupture, provided he can be, and is, fitted with an efficient retaining apparatus which is maintained in a state of efficiency, is practically as good a workman as a man who has no rupture.

This man's case was complicated by the fact that one doctor was reported to have told him that, whilst he was fit for ordinary work, he must take care, especially when using a heavy hammer, etc. This same medical man had, a short time before, given evidence in a County Court that he had passed for ordinary work on board ship a very large number of men who had ruptures, but were wearing efficient trusses.

As the result of a long conversation with this man, it became evident that he had made up his mind not to go to sea if he could help it. He based his objection on the grounds that he might require medical attention at sea, and be unable to get it ; that he had an opinion from a medical man that he was not wholly fit for laborious work ; and that at sea, if wanted in a hurry, he might not have time to put the truss on.

Thirteen months before the accident he had been examined by a Shipping Federation doctor, who certified that there was a slight tendency to hernia. It was impossible dogmatically to deny or affirm the presence of a rupture before the alleged accident, but I was prepared to give evidence to the effect that the condition was quite compatible with pre-existing rupture.

Result.—Ten weeks later, at the County Court, the Judge terminated the compensation, providing for the award to be kept open by the payment of a penny a week.

The Frequency of Hernia.—In one section of my work, of 12,189 consecutive candidates for entrance examination that have passed through my hands, 203 have had hernia—*i.e.*, 1·6 per cent.

Complaints after Radical Cure.—Apart from temporary inconvenience, such as delayed closure of the wound, the subse-

quent working out of stitches, and so on, patients sometimes complain of persistent pain and discomfort in the neighbourhood of the wound when this is soundly healed. In all such cases two conditions should be remembered: First, the pain may be due to the presence of a coexistent varicocele, which has escaped notice at the operation, the removal of which will put an end to the discomfort complained of; the other condition is that of constriction of the cord, as the result of the too complete closure of the inguinal canal by the operation. If this has occurred, the testicle of that side will atrophy, so that this organ should be carefully examined. If neither of these conditions is present, and no abnormality can be found to account for the pain, it is probably a neurosis; for it must be remembered that scars in this neighbourhood are exceedingly likely to become the objects of too close attention on the part of the patient, and he will readily become the victim of painful sensations which are mainly psychical, and can only be removed by appropriate mental treatment.

If convalescence is allowed to continue beyond the necessary period of rest required after an operation for hernia, a feeling of incapacity becomes a fixed idea amounting in some cases almost to an obsession.

I am confident that we should hear much less of hernia in the Law Courts if working-men who have been operated upon would, six weeks from the date of the operation, consult the surgeon who operated as to their fitness or otherwise for work, instead of going to lawyers and the "expert witnesses" who are associated with some of those gentlemen.

One difficulty in these cases arises from the suggestion, which is sometimes made, that, notwithstanding a successful operation, a truss is necessary, the allegation being that the necessity for a truss makes it impossible for a seaman to return to his ship.

Now, it is well to have clear views with regard to the position of working-men after the radical cure of hernia. Everyone knows that tens of thousands of working-men are doing their ordinary work after the radical cure for rupture, and that no truss or other restraining apparatus is necessary. Some surgeons advocate that in the strenuous occupation of a gas stoker, a truss should be worn as a precautionary measure, as a larger number of cases in which the operation has been

performed seem to relapse in this particular vocation than in any other.

Relapses after the radical cure for hernia are by no means very infrequent, and depend, it is well known, upon three things—the dexterity with which the operation was performed, the condition of the abdominal wall in the neighbourhood of the inguinal canal, and the nature of the work in which the man has engaged subsequent to the operation.

Assuming a hard, firm cicatrix, and absence of bulging at the seat of the operation, it is unfair to say that a man is, because of the possibility of a relapse, unfit for work; and, even assuming that a truss has to be worn as a precautionary measure, my opinion is that a working-man may do *any* work whilst still wearing a truss, provided he takes the ordinary precaution that a prudent man would do—viz., take care that the truss continues to fit, and does not become loose.

Although it is difficult to credit, the author has actually had to give evidence in Court as to whether a workman, who had had an excellent result from the radical cure for hernia, had, in fact, really recovered.

D. E., a seaman, aged twenty-eight, whilst moving a ventilator on board ship, strained himself, causing rupture on the left side. The ship's doctor applied a truss. D. E. did light work till his arrival at the London Docks, when an operation was performed for radical cure of the rupture. In due time he was discharged with a certificate of fitness for light work. As his employers could not obtain light work for him, compensation was continued for five months. A medical man certified that there was no foundation for his continued complaint of pain, and payment was stopped. The case went to arbitration. The claimant's doctors stated that he was only fit for very light work; that further operation, though necessary, would be dangerous; and the Judge ordered the compensation to be continued.

Eight months after this award he was sent to me for examination, with a view to an application for termination of the compensation.

He told me that his condition was worse than before the award, that he had pain on every movement, and that the surgeon at the hospital had confirmed the opinion which appears to have been expressed by his doctors at the arbitration—namely, that a nerve or other structure was implicated in the scar-tissue.

When requested to strip, D. E. asked for the assistance of a seat, but when this was refused undressed nimbly without any help. I found a perfectly healed scar of an old operation for hernia, the best result I had ever seen. The moment my hand was laid gently on the neighbourhood of the scar, he winced visibly; but when his attention was

directed to pressure on the *other* groin, and he was asked if he felt any pain, he replied more than once that he did not, taking no notice of continuous pressure meantime upon the left, which was the side said to be painful.

He was wearing a suspensory bandage for alleged pain in the left testicle; when he replaced this after examination, he applied the buckle and strap over the area in the groin which was said to be tender, twisting the spare end two or three times around the bandage at the exact spot where it passed over the alleged painful area!

Whilst dressing he pretended he was unable to lace his boots without placing his foot on one of my chairs, evidently unaware that he had previously been observed putting on his socks and boots by lifting his feet from the ground only so far as was necessary to allow these articles to be slipped over each foot. Obviously, if pain had really been present at the groin, the line of least resistance would have been to sit down, crossing each leg alternately on the other; whereas placing the foot on a chair entailed bending the body at an acute angle at the hip, and thus causing pressure upon the groin, the position he pretended he wished to avoid.

He had carefully tutored himself to believe that a few unimportant swollen glands at the groin were sensitive, and gave me no hope that he would ever work again. The opinion I formed was that he was deliberately malingering, and that there had been nothing the matter with him for some time.

Steps were taken for an immediate application for a review.

Result.—The hearing of the case in the County Court resulted in an award terminating payment of compensation as from the date of my first examination, with a declaration of liability in the event of recurrence of incapacity. The man, therefore, had received four months' compensation to which he was not entitled, and which it was impossible to recover. The employer made an unsuccessful attempt to recover costs. The last hearing alone cost the employer £30.

Surgical operations, with their gruesome details, the chances of failure, and the possibility of death under an anæsthetic, are dreaded, and I think rightly so, by most normally constituted people. Yet it is my experience that workmen seeking to postpone the date of return to work have actually welcomed the thing which, above others, most of us wish to avoid. Those whose nervous organization is less active, who, in consequence, feel less acutely, do, I suppose, object less to surgical operations, perhaps because of the mystery which surrounds them; or it may be they are to a large extent ignorant of the possibilities, or have much faith. Making all allowances, however, for the factors, known and unknown, which determine the modern craze for surgery, the following case is, I think, unique—at least, it certainly is in my experience:

History.—D. F., aged eighteen, alleged that whilst aloft washing the mainmast he was jammed between the stays, and as a result sustained a rupture at the seat of an operation for traumatic rupture performed four years previously. He stated that he was in hospital under the care of a consulting surgeon for nearly six months, undergoing two operations under chloroform, and having "gas nearly every day." He became no better, and afterwards was again operated on at the same hospital. Subsequently he was declined, on medical grounds, for service at sea. D. F. was discovered to be a pronounced "sea-lawyer." He constantly talked of the result of his case, although there had been no suggestion of taking the matter to Court; indeed, his compensation had been paid continuously, except for a short period when he refused to attend for medical examination. As he was evidently of an abnormally litigious disposition, and the matter was likely to be taken into Court eventually, I was requested to examine him with a view to giving evidence, if necessary.

Examination.—The left groin evidenced a good deal of operative interference; there was a bulging of the abdominal wall on the left side, which was stated to be painful, but when engaged in conversation D. F. allowed firm pressure, and did not wince until I was certainly hurting him. The hospital surgeon who saw the case with me agreed that it was obvious he had no pain there, and that all that was required to prevent future trouble was a properly fitting truss.

I made every endeavour to understand this lad's mental attitude. He said he suffered great pain, which always came on at 9 p.m., and he retired to bed two hours earlier in order to avert it. He said he was indoors most of the day, but his looks belied him, for he had the ruddy appearance of one who spent much time out of doors. He made no complaint of the hardship of undergoing so many operations. Why was he so willing to undergo operations if he were not genuinely ill? Perhaps the keynote of the whole situation lay in his statement that he was looking forward to the decision of the Court in his case, as he wished to go back to America! I concluded that he was lazy; he disliked the life at sea, and his half-wages under the Workmen's Compensation Act enabled him to walk about the streets of London with what to him was a comfortable allowance.

When he was sent to me, he was waiting admission to another hospital for further operation, which apparently was that the abdominal wall should be strengthened by inserting a silver filigree plate. I saw the surgeon who was to perform the proposed operation, and pointed out to him that the mere presence of the plate (whether surgically useful or not) would easily convince a jury that the lad was hopelessly disabled, if they were invited so to find.

I proposed as an alternative that D. F. should enter a hospital, be fitted with a truss, and kept under observation during the period of temporary inconvenience which all patients experience when first wearing a truss.

When admitted to the hospital, it was arranged that he should at first wear a spica bandage in order to get used to the truss. After a

few days he told me he was quite willing to go to sea, but the doctor would not pass him if he had to wear a truss. He was informed that this was not so. I paid him several visits at this critical period. One day I was sent for urgently, as he had packed up his things and announced his intention of taking a week's holiday with a friend! It was pointed out to him that he had received sick-pay for two years, and that the treatment (for which the shipping company was paying) was on the point of being completely successful. Finally, he agreed to remain. He then told me that he had long ago made up his mind not to return to sea, but proposed to endeavour to enter the London Fire Brigade. The house-surgeon showed me the lad's truss; it had obviously never been worn. I made it fit, and he wore it. He afterwards left the hospital wearing the truss, and said he was perfectly comfortable. Shortly afterwards he joined a ship.

A few weeks later he was sent to me by the shipping company, the allegation being that the use of the truss caused pain, and that he had an internal gathering, which had given rise to six epileptic seizures abroad!

A careful consideration of his detailed description of each attack showed several inconsistencies. No sort of evidence, except his word, that he ever had had the fits alleged was forthcoming, for the witnesses were either summoned *when the fit was over*, or were such as would not be able to decide between a genuine and a simulated fit. I had no doubt that the attacks were either of a purely hysterical nature, or feigned for medico-legal purposes—in fact, nothing but a dodge to keep himself on the sick-list. I learned at the hospital that, prior to leaving it, he had witnessed more than one severe epileptic seizure.

I advised the company to cease payments and repudiate the claim. His sick-pay, which had been recommenced, was therefore stopped.

Result.—He went to an Institution for Working Boys, and endeavoured to bring clerical influence to bear on his employer; but the latter interviewed the secretary, and satisfied him that the less done for D. F. the better, and soon after D. F. vanished from the arena of distressed mariners, at least so far as the Port of London was concerned.