

# MEDICAL JURISPRUDENCE.

BY

ALFRED S. TAYLOR, M. D., F. R. S.,

HON. M. D. UNIV. ST. ANDREWS, FELLOW OF THE ROYAL COLLEGE OF PHYSICIANS AND LECTURER ON  
MEDICAL JURISPRUDENCE AND CHEMISTRY IN GUY'S HOSPITAL.

Weniges aus Vielem. Eine kleine Auswahl aus einer unübersehbaren Menge.

CARUS.

---

FOURTH AMERICAN FROM THE FIFTH AND IMPROVED LONDON EDITION.  
EDITED WITH ADDITIONS.

BY

EDWARD HARTSHORNE, M. D.,

ONE OF THE SURGEONS TO WILL'S HOSPITAL, ETC.



PHILADELPHIA:  
BLANCHARD & LEA.  
1856.

brain was lacerated, and there was great effusion of blood. The second vertebra of the neck was fractured, and the spinal marrow torn through. These injuries were quite sufficient to account for death; and had they existed alone, there might have been no reason to charge the husband with the murder. But there was a wound on each temple, partly lacerated and partly bruised, and a branch of the right temporal artery had been divided; the injury having been inflicted, apparently, with a pointed blunt instrument. There were marks of blood on the wall at the top of the staircase, and a pointed stone, covered with blood, was found near the body. It was therefore obvious, as the deceased had fallen on the vertex, that the injuries to the two temples *laterally*, could not have been accidentally produced, for there was no projecting body against which she could have fallen in her descent; and when the force of the fall had been spent on the vertex, her body could not have rolled over, so as to produce mixed punctures and lacerated wounds on both sides of the head. All the facts tended to show that a murderous assault had been made upon her at the top of the stair, and that she had afterwards fallen or had been pitched headlong backwards. The injuries received previous to the fall might have stunned her, and might not have sufficed to account for death; but their nature and situation furnished strong proof that they could not have arisen from any cause operating simultaneously, and that they were neither of accidental nor suicidal origin. The prisoner was convicted and executed. (Med. Gaz. xxxvii. 610.)

If several wounds have been inflicted through the *dress*, an examination of this may sometimes suffice to show which was first received. A man, in struggling with an assailant, received three stabs with a knife—two on the left elbow, and the third in the back. The latter was about the level of the eighth rib;—it was vertical to the chest, and had clean edges. The lower margin was obtuse—the upper acute; hence it was evident that the cutting edge of the weapon had been directed upwards. It had traversed the left lung and the heart, and had caused immediate death. It was obvious, on examination, that this mortal wound had been first received, and the stabs at the elbow inflicted subsequently. These two stabs, which were slight, had divided the cloth coat and shirt, and had only grazed the skin, so that no blood had been effused. But the edges of the cuts in the cloth coat and shirt were stained with blood; hence it was evident that they must have been produced by a weapon already rendered bloody by a previous wound. The fact was of some importance in the case, and the correctness of the medical opinion was confirmed by the evidence at the judicial inquiry. (See Ann. d'Hygiène, 1847, i. p. 461.)

## CHAPTER XXIV.

EVIDENCE FROM CIRCUMSTANCES—MEDICAL QUESTIONS—VALUE OF CIRCUMSTANTIAL EVIDENCE—THE POSITION OF THE BODY—OF THE WEAPON—THE WEAPON OR OTHER ARTICLES FOUND IN THE HAND OF THE DECEASED—EVIDENCE FROM BLOOD ON WEAPONS—MARKS OF BLOOD ON THE PERSON OR IN THE APARTMENT—POSITION OF THE PERSON WHEN MORTALLY WOUNDED—EVIDENCE FROM WOUNDS ON THE DECEASED—NO BLOOD ON THE ASSAILANT—FALLACY RESPECTING MARKS OF BLOOD. ARTERIAL DISTINGUISHED FROM VENOUS BLOOD—EVIDENCE FROM THE FORM AND DIRECTION OF SPOTS OF BLOOD.

*Evidence from circumstances.*—In pursuing the examination of the question respecting the homicidal or suicidal origin of wounds, the attention of the reader may be called to the force of evidence which is sometimes derived from

the circumstances under which the body of a person, dead from wounds, is discovered. It may be said that this is a subject wholly foreign to the duties of a medical jurist; but I cannot agree to this statement: there are very few in the profession, who, when summoned to aid justice, by their science, in the detection of crime, do not seek for circumstances by which to support the medical evidence required of them. A practitioner would certainly be wrong to base his professional opinion exclusively on circumstantial proofs: but it is scarcely possible for him to avoid drawing an inference from these, as they fall under his observation, for or against the prisoner. His evidence may be of itself weak, and insufficient to support the charge against an accused party; in such a case, if any suspicious circumstances have come to his knowledge, he may be often unconsciously induced to attach greater importance to the medical facts than he is justified in doing; in short, he may, through a feeling of prejudice, which it is not always easy to avoid, give an undue force to the medical evidence. But if a proper degree of caution be used in drawing inferences from the circumstantial proofs, and they are not allowed to create a prejudice in his mind against a prisoner, a practitioner is, I think, bound to observe and record them; for being commonly the first person called to the deceased, many facts, capable of throwing an important light on the case would remain unnoticed or unknown, but for his attention to them. The position of a dead body,—the distance at which a knife or pistol is found,—the direction of the instrument,—whether situated to the right or left of the deceased,—the marks of blood about the person, clothes, or furniture of the apartment, are all circumstances which must assist materially in developing the real nature of a case, and in giving force to a medical opinion. Many of these circumstances can fall under the notice of him only who is first called to the deceased; and, indeed, if observed by another, no advantage could be taken of them without the assistance of a medical man.

Among the questions which present themselves on these occasions are the following:—Is the position of a wounded body *that* which a suicide could have assumed? Is the distance of the fatal weapon from the body such as to render it improbable that it could have been placed there by the deceased?—In answering either of these questions, it is necessary to take into consideration the extent of the wound, and the period at which it probably proved fatal. Again, it may be inquired:—Has the deceased bled in more places than one? Are the streams of blood all connected? Are there any marks of blood on his person or clothes, which he could not well have produced himself?—These are questions, the answers to which may materially affect the case of an accused party: and the practitioner, in noticing and recording the circumstances involved in them, ought therefore to exercise due caution and deliberation. “The consideration of the nature of circumstantial evidence,” observes Starkie, “and of the principles on which it is founded, merits the most profound attention. It is essential to the well-being at least, if not to the very existence of civil society, that it should be understood, that the secrecy with which crimes are committed will not insure impunity to the offender. At the same time it is to be emphatically remarked, that, in no case, and upon no principle, can the policy of preventing crime and protecting society, warrant any inference which is not founded on the most full and certain conviction of the truth of the fact, independently of the nature of the offence and of all extrinsic considerations whatever. Circumstantial evidence is allowed to prevail to the conviction of an offender, not because it is necessary and politic that it should be resorted to, but because it is in its own nature capable of producing the highest degree of moral certainty in its application. Fortunately for the interests of society, crimes, especially those of great enormity and violence, can rarely be committed, without affording vestiges by which the offender may be traced and ascertained. The very measures which he adopts for his security, not unfrequently turn out to be the most cogent arguments of guilt. On the other hand, it is to be recollected, that this is a species of evi-

dence which requires the utmost degree of caution and vigilance in its application: and in acting upon it, the just and humane rule, impressed by Lord Hale, cannot be too often repeated:—*tutius semper est errare in acquietando quam min puniendo, ex parte misericordiæ quam ex parte justitiæ.*” (Vol. i. p. 480.) Evidence is *direct* when a fact is proved by witnesses, and *circumstantial* when the fact is at once proved by circumstances. More commonly the evidence is *presumptive*, i. e. founded on an inference from circumstances.

*Circumstantial Evidence.*—The common rule respecting the admissibility of this kind of evidence applies to circumstances of a medical as well as those which are of a physical or moral kind. Medical circumstances, when properly observed, are often of the highest importance. In order to convict an accused person on circumstantial evidence, the facts proved in the case should square with the hypothesis of his guilt, and be utterly inconsistent with his innocence; or, in the language of another learned judge, a certain number of facts should be incontestably proved in the case, which are quite inconsistent with the innocence of the prisoner. These facts should be such as to render it impossible, in the minds of a jury, that any one but the prisoner could have committed the murder.

There are many cases on record in which an observance of slight and unexpected circumstances by medical men, has led to the detection of offenders. In the life of Sir Astley Cooper, it is mentioned, that when called to see *Mr. Blight*, of Deptford, who had been mortally wounded by a pistol-shot in the year 1806, he inferred from an examination of the localities, that the shot must have been fired by a *left-handed* man. The only left-handed man near the premises at the time was a *Mr. Patch*, a particular friend of the deceased, who was not in the least suspected. This man was afterwards tried and convicted of the crime:—and he made a full confession of his guilt before execution.

The rules for investigating a case of poisoning (see ante, p. 38) may be equally observed in many cases of death from violence. Among the circumstances to which a medical witness should specially direct his attention on these occasions are the following:—

*The position of the body.*—The body may be found in a position which the deceased could not have assumed on the supposition of the wound or injury having been accidental or suicidal. The position of a dead wounded body is often only compatible with homicidal interference, either at the time of death, or immediately afterwards. In order to determine the probable time of death, we should always notice whether there be any warmth about the body,—whether it be rigid, or in a state of decomposition, and to what degree this may have advanced. In the case of a female who was found dead in her apartment, with her throat cut, in November, 1847, it was ascertained that when first discovered, the body was so warm as to render it highly probable that the crime must have been committed within an hour. This observation tended to prove the innocence of a party who was suspected of the murder, because it was known that he had been absent from the house for at least five hours.

*The position of the weapon.*—If a person has died from an accidental or self-inflicted wound, likely to cause death either immediately or within a few minutes, the weapon is commonly found either near the body or within a short distance. If found near, it is proper to notice on which side of the body it is lying; if at a short distance, we must consider whether it might not have fallen to the spot, or been thrown or placed there by the deceased. If there has been any interference with the body, all evidence from the relative position of it and the weapon will be inadmissible. In a case which was referred to me some years since, a woman had evidently died from a severe incision on the throat, which was homicidally inflicted; the weapon, a razor, was found under the left shoulder, a most unusual situation, but which, it appears, it had taken owing to the body having been turned over before it was seen by the surgeon who was first called.

We must remember that it is quite compatible with suicide that a weapon may be found at some distance, or in a concealed situation; but it is much more frequently either grasped in the hand, or lying by the side of the deceased.

In one instance, it is stated the deceased was discovered in bed with his throat cut, and the razor lying *closed* or shut by his side. It appears very improbable that any person committing suicide, after dividing one or both carotids and the jugular veins, should have power to close or shut the razor; and there are fair grounds to suspect interference when the razor is thus found closed. There is, however, one circumstance in relation to a weapon strongly confirmatory of *suicide*. If the instrument be found firmly grasped in the hand of the deceased, no better circumstantial evidence of suicide can, perhaps, be offered. It is so common to find knives, razors, and pistols grasped in the hands of suicides, that it is quite unnecessary to produce cases illustrative of this statement. The grasping of a weapon appears to be owing to muscular spasm persisting after death and manifesting itself under the form of what has been called cadaverous spasm—a condition quite distinct from rigidity, although often running into it. It does not seem possible that any murderer could imitate this state, since the relaxed hand of a dead person cannot be made to grasp or retain a weapon, like the hand which has firmly held it by powerful muscular contraction at the last moment of life. In this respect the case of *Reg. v. Saville*, Nottingham Summer Assizes, 1844, is of great interest to the medical jurist. A woman was found dead with her throat cut, and there was a razor *loose* in her hand. There was no blood upon the hand which held the razor, and this, together with the fact of its being quite loose, rendered it certain that it must have been placed there by the prisoner after having cut his wife's throat. The deceased may be found with some other article grasped in the hand. (See case, *Ann. d'Hyg.*, 1829, i. 464.) It may be her own or the prisoner's hair torn off in the struggle for life; and on this point a question of identity may be easily raised. (*Reg. v. Ellison*, Bodmin Summer Assizes, 1845.) In a case which occurred to Dr. Marc, a woman was found assassinated in her house, and when the body was discovered, a small snuff-box was still held firmly in one hand. This proved that the murder must have taken place very suddenly, and without any resistance on the part of the deceased. (*Ann. d'Hyg.* 1829, i. 465.)

If the weapon cannot be discovered, or if it be found concealed in a distant place, this is strongly presumptive of homicide, provided the wound be of such a nature as to prove speedily fatal. In the case of *Lord William Russell* no weapon could be discovered: and although the wound in the throat bore some of the characters of a suicidal incision, this fact alone was sufficient to show that it must have been the act of a murderer. With respect to the weapon being found at a distance from the body, other circumstances should be taken into consideration before any opinion is expressed. We may observe whether the weapon, if it be a sharp cutting instrument like a razor, has been recently notched; for this might show that a degree of force or violence has been used, not easily reconcilable with the suicidal use of the instrument. The well-known case of the *Earl of Essex*, who was found dead in the Tower, in July, 1683, gave rise to a doubt on this point. The deceased was discovered with his throat cut, and a razor lying near him. This razor was found to be much notched on the edge, while the throat was smoothly and evenly cut from one side to the other, and to the vertebral column. Some considered this to have been an act of suicide, others of murder. Those medical witnesses who supported the view of suicide, were asked to explain how it was that such an even wound could have been produced by a notched razor. They attempted to account for this by asserting that the deceased had probably drawn the razor backwards and forwards across the neck-bone; forgetting that before this could have been done by the deceased, all the great vessels of the neck must have been divided!

*Blood on weapons.*—It does not always happen that the weapon with which

a wound has been produced is covered with blood. It has been remarked, that in the case of stabs, the knife is frequently without any stains of blood upon it; or there is only a slight film, which, on drying, gives to the surface a yellowish-brown colour. The explanation of this appears to be that the weapon, in being withdrawn, is sometimes cleanly wiped against the edges of the wound in the integuments.

When a weapon is bloody, particular attention should be given to the manner in which the blood is diffused over it. In cases of imputed wounds, or in the attempted concealment of murder, it is not unusual for the criminal to besmear with blood a knife or other weapon which has probably not been used. A case of this kind occurred to the late Dr. Marc. A young man alleged that he had received a cut on the forehead by a blow from a cutlass, which he produced. It was remarked, that the weapon was smeared with blood on both surfaces: but the layers were thicker towards the handle than at the point. The wound on the forehead was a clean incision; and a cap which the complainant wore had been cut through. It was obvious, therefore, that the blood on the weapon could not have proceeded from this cut: for it would have been wiped, or only left in thin striae, and more towards the point than the handle, by the act of drawing it through the cloths in producing the wound. There was no doubt that blood had been intentionally applied to the blade. (Ann. d'Hyg., 1829, p. 263.)

*Hair on weapons.*—In some instances, no blood may exist on the weapon, but a few hairs may be found adhering to it if the weapon be of a bruising kind. The main question will be, in such a case, whether the hair is that of a human being or of an animal. See in reference to this question the case of the *Queen v. Teague*, Cornwall Summer Assizes, 1851, (Med. Gaz. Vol. xlviii. p. 729.) The importance of examining closely the hair found on weapons, is shown by a case quoted by Dr. Lyons, in which a hatchet having clotted blood and hair adherent to it was produced as evidence against an accused person, under whose bed this weapon had been found. This, with other circumstantial evidence, had turned public opinion strongly against the prisoner, when a physician who happened to be in court, examined the hair with a pocket lens, and pronounced that it was not human, but belonged to some animal. This circumstance led to a more complete sifting of the evidence, and the accused was acquitted. It turned out that he had killed an animal with the hatchet, and had carelessly thrown the weapon under the bed. (Apology for the Microscope, p. 24.)

Before the coagulum is removed from a weapon it should be examined carefully by the microscope. Hairs or fibres, or other substances, may be found imbedded in the solidified blood either on the edge or on the blade; and evidence of this kind may occasionally be of great importance. In the case of *Reg. v. Harrington*, Essex Lent Assizes, 1852, a razor was produced in evidence, with which it was alleged the throat of the deceased had been cut. I examined the edge microscopically, and separated some small fibres from a coagulum of blood, which under a high magnifying power turned out to be cotton fibres. It was proved at the trial that the assassin, in cutting the throat of the deceased while lying asleep, had cut through one of the strings of her cotton nightcap. This was a strong circumstance to show that the razor produced was the weapon with which the fatal wound had been inflicted.

*Foreign substances in wounds.*—In gun-shot wounds, the examination of wadding or paper found in the wound or near the deceased has in more than one instance led to the identity of the person who had committed the crime. His hand-writing has been traced on the paper used as wadding, or it has been found to be part of a printed page of which the remainder has been discovered in his possession. Foreign substances may be sometimes discovered in contused or lacerated wounds: and these may throw an important light on the circumstances under which the crime was perpetrated. In the case of the *Queen v. Hazell*,

(Taunton Lent Assizes, 1848,) the body of the deceased was found in a well. When examined, there were on the head several severe wounds quite sufficient to account for death. There was much blood on the clothes and face, and in the blood were sticking a quantity of hay-seeds, which led the medical witness to consider that the wound must have been inflicted in a stable or in some place where there was hay. On examining a neighbouring stable, the spot where the murder was committed was rendered evident by the discovery of marks of blood.

*Evidence from the Situation of Marks of Blood.*—The observation of these is of importance at the time that a dead body is found. They may be so situated as to show that the body has been moved or been interfered with after death, and thus throw a light upon the question whether the act has been one of homicide or suicide. In the case of *Reg. v. Hatto* (Bucks Lent Ass., 1854,) a mark of blood, as from the smear of a hand, was traced along the passage of the house in which the body of the deceased was found. The mark was continued over the door-post into a back room, which was found locked and bolted on the inside. The crime was thus fixed upon the prisoner; for no one breaking into the house in front could have had access to this room. The evidence thus brought against him was derived from his feeling his way with a bloody hand in the darkness after the murder. He was not at the time aware that he was thus leaving impressions which would show that no one but himself could have perpetrated the crime. It is a fair subject of medico-legal inquiry on these occasions, whether there are any marks of blood about the apartment, which no one but the assassin could have produced.

*Marks of blood.*—It is proper to notice all marks of blood on the person or in the apartment, and to observe where the greatest quantity of blood has been effused: this is generally found in the spot where the deceased has died. The deceased may have bled in more places than one; if so, it becomes important to notice whether there be any communications in blood between these different places. Blood on distant clothes or furniture will show whether the deceased has moved about, and whether he has struggled much after receiving the wound. Acts of locomotion on the part of the wounded person who has died from hæmorrhage, are generally indicated by tracks of blood. We must observe likewise, whether, if the wound be in the throat, blood has flowed down in front of the clothes or person; for this will sometimes show whether the wound was inflicted when the individual was standing, sitting, or lying down. If the throat be cut while a person is lying down, it is obvious that the blood will be found chiefly on either side of the neck, and not extending down the front of the body. Few suicides cut the throat while in a recumbent posture, and the course which the blood has taken may, therefore, be sometimes rendered subservient to the distinction of a homicidal from a suicidal wound. The position in which the body was, when the wound was inflicted, is a frequent question on inquests and criminal trials. In the case of *Lord William Russell*, the throat had evidently been cut while the deceased was lying in bed; the blood was effused on each side of the neck only. There was also found a wound on the thumb of the right hand of the deceased, which must have been inflicted at the time the hand was put up to defend the throat. Recent wounds on the back of one or both hands, when found in persons who have died from wounds in the throat, are, *cæteris paribus*, strongly presumptive of homicide. There may, however, be no marks of wounds on the back of the hands, if the individual was attacked unexpectedly—if he was intoxicated, or rendered powerless, or several had combined to attack him, while he was pinioned and held by an accomplice.

If the deceased has been wounded with his clothes on, we should notice whether any part of his dress has or has not been cut or injured over the situation of the wound. When, together with the wound in the throat, we find the cravat and the shirt, or part of the dress cut through, this is, all other circum-

stances being equal, presumptive of homicide; for it is not usual that a suicide, unless labouring under confirmed insanity, would allow any mechanical obstacles of this kind remain in the way of a weapon. In one case of a homicidal wound in the throat, inflicted in the recumbent posture, the cravat of the deceased had been lifted up, and afterwards allowed to drop over the wound in order to conceal it.

The importance of examining the dress, and comparing it with the marks of violence on the body, has already been pointed out. (See case by Mr. Codd, ante, p. 200.) The nature of the dried spots of *mud* on clothing may occasionally serve to connect an accused person with an act of murder. In the case of the *Queen v. Snipe and others*, (York Winter Assizes, 1852,) evidence was adduced to show that some spots of mud on the boots and clothes of the prisoner, when examined microscopically, presented infusorial shells, and some rare aquatic vegetables, globules of soap, confervæ and hairs from the seeds of groundsel. The mud of a ditch close to which the body of the deceased was found, presented the same appearances precisely as the mud on the prisoner's boots: and the witness who gave this scientific evidence, deposed that in his opinion the mud-spots were derived from this ditch. He had examined the mud of all the other ditches in the locality, and found it to be different. Admitting this opinion to have been correct, this circumstance clearly connected the prisoner with the act; and it was borne out by the fact that he had been seen near the spot on the night of the murder.

Marks of blood on the *person* of the deceased require special observation. Very often the impression of a hand, or of some of the fingers, will be found on the skin in a situation where it would have been improbable or impossible for the deceased to have produced it, even supposing that one or both of his hands were covered with blood. In one case of murder, there was found the bloody impression of a left hand upon the *left hand* of the deceased, in such a position that it was quite impossible the deceased himself could have made the mark! In other cases it may be important to state whether the inside or outside of the hand, or whether one or both hands, be marked with blood. Marks of blood on the *dress* of the wounded person may often furnish important circumstantial evidence. If there be several stabs or cuts on the body involving the dress, it should be observed whether the edge of one or more of them be stained with blood, as if from the wiping of a weapon, and whether the stain be on the outside or inside of the article of dress. In simulated personal injuries, the stain of blood may be, through inadvertence, applied to the outside of the dress—a fact which might, in some instances, lead to the detection of the imposture. (See case by Dr. Bayard, Ann. d'Hyg. 1847, ii. 219.) In judging from marks of blood in the *apartment*, we must take care that we are not unconsciously misled by the accidental diffusion of this liquid by persons going in and out. The following case, which will show the necessity of extreme caution, occurred in France. A young man was found dead in his bedchamber with three wounds on the front of his neck. The physician, who was first called to see the deceased had, unknowingly, stamped in the blood with which the floor was covered, and had then walked into an adjoining room, passing and repassing several times; he had thus left a number of bloody foot-prints on the floor. No notice was taken of this at the time; but on the following day, when the examination was resumed, the circumstance of the foot-prints was particularly attended to, and excited a suspicion that the young man had been murdered. The suspected person was arrested, and would have undergone a trial on the charge of murder, had not M. Marc been called in to examine all the particulars of the case. A similar circumstance occurred in the case of *Eliza Grimwood*, who was murdered at Lambeth in June, 1838.

*Arterial distinguished from venous blood.*—It is not possible to distinguish arterial from venous blood by any physical or chemical characters, when it has



been for some days effused, and has fallen upon articles of dress or furniture: but this, in medico-legal practice, is not often a subject of much importance, since there are few cases of severe wounds, either in the throat or other parts of the body, in which the two kinds of blood do not escape simultaneously. The most striking and apparent differences between them, when recently effused, is the *colour*; the arterial being of a bright scarlet, while the venous is of a dark red hue: but it is well known that the latter, when exposed to air for a short time, acquires a florid red or arterial colour: and the two kinds of blood, when dried, cannot be distinguished chemically by any known criterion. If the coat or other stuff, covered with blood, were of a dark colour, the liquid would be absorbed, and lose its physical characters. Arterial blood contains more fibrin than venous, and coagulates more firmly. Even the microscope shows no appreciable difference in the blood-corpuscles; and chemistry does not enable us to apply any test so as to make a satisfactory distinction between them. In this deficiency of microscopical and chemical evidence, an attempt has been made to establish a distinction by noticing the physical appearances of the blood-stains. Thus, it is alleged, the arterial blood will be indicated by its being *sprinkled* over surfaces upon which it has fallen, while the venous blood is always poured out in a full stream. In most wounds which prove fatal by hæmorrhage, the blood is poured out simultaneously from arteries and veins. The sprinkled appearance of the blood, when it exists, will, *cæteris paribus*, create a very strong presumption that it was poured out from a *living* body; for after the heart has ceased to act, the arteries lose the power of throwing out the blood in jets. This mode of distinguishing arterial from venous blood was adduced as evidence in the case of *Sellis*, who destroyed himself after having attempted to assassinate the Duke of Cumberland. There was the appearance of sprinkled blood on the coat-sleeve of *Sellis*, and the temporal artery of the Duke had been wounded in the struggle. Sir Everard Home thence inferred that *Sellis* had attacked the Duke, and wounded the artery, which had led to the sprinkling of the sleeve. (*Will's Circ. Ev.* 98.) This method of distinguishing the two kinds of blood, therefore, may be occasionally available for practical purposes; but it must be remembered that accident may lead to the sprinkling of blood from a small vein which has been wounded, while blood may be poured out in considerable quantity from an artery, especially if large; and if it fall on one spot at a short distance, it may produce a soaked appearance. The sprinkling may be expected only when the wounded artery is small, and the blood is effused at a distance. This is a fact which a medical jurist should not overlook, although, for the reasons stated, too great a reliance must not be placed on it. The spots of blood, if thrown out from a living blood-vessel, very speedily consolidate; and the fibrin, with the greater portion of the colouring matter, is found of a deep red colour at the lower part of the spot, the upper portion being of a pale red. The lower and thicker part has commonly a shining lustre, as if gummed, when the spot is recent, and when it has been effused upon a non-absorbent surface. This glazed appearance is probably given by the evaporation of the aqueous, and the rapid desiccation of the albuminous portions. When the blood falls upon porous articles of clothing, as linen or cotton, it is absorbed, and produces a dull stain. In dark-coloured articles of dress, it is difficult by day-light to perceive these stains. The part appears stiffened, and there is a dull red brown colour, which is more perceptible when seen by the reflection of the light of a candle. Stains of tobacco, or of the juices of certain vegetables, may present somewhat the appearance of those of blood. The distinction between them will, however, be rendered immediately apparent by the application of the microscope and of the chemical processes to be hereafter mentioned. (See BLOOD-STAINS.)

In trusting to the coagulation of the blood as evidence of its escape from a *living* vessel, it must be remembered that there are certain diseases, as scurvy

and typhus, in which, owing to morbid causes, the blood does not readily coagulate: while, again, some hours elapse before it coagulates in the healthy body after death. Hence blood which has escaped from a recently dead body, although it would not be found diffused as if by spirting, might, in so far as coagulation is concerned, assume the appearance of having been effused from a living body. On this fact Donn  has founded a process for determining whether a person be really dead. (*Cours de Microscopie*, 54.)

When spots of blood are found upon articles of dress or furniture, their *form* and *direction* may sometimes serve to give us an indication of the position of the wounded person with respect to them. Thus, when the form of a spot is oval and elongated, the presumption is that the person was placed obliquely with respect to the stained furniture, during the h morrhage. (*Ann. d'Hyg.* 1840, 397.) The impetus with which the blood is thrown out, will be in some measure indicated by the degree of obliquity and length of the spot. This is in general wide and rounded at the upper part, but narrow and pointed below. The case of *Spicer* (ante, page 208) furnishes some interesting suggestions on the importance of the evidence occasionally derived from the examination of the form and direction taken by spots of blood. At the top of the stair, and at the height of four or five feet above the level, several spots of blood were observed upon the brick-wall. These were rendered very evident by the wall having been white-washed. The spots took an oblique direction from above downwards, were of a pale red colour at the upper part, but dark red below, terminating in a point consisting of the fibrin and the greater part of the red colouring matter. Their form and regularity proved that they had proceeded from a small artery, and that the wounded individual could not have been very distant from the wall, while their shining lustre rendered it probable that they were of recent origin, and their well-defined termination in a firm coagulum showed that they had proceeded from a living blood-vessel. The deceased had died from fracture of the skull and vertebral column by a fall from the top-stair; one branch of the right temporal artery was found divided, and this wound could not have been produced by the fall. It was therefore evident that a murderous assault had been made upon her at the top of the stair: this had led to the spirting of the arterial blood on the brick. The height at which the spots existed, and their appearance, proved that the jet of blood had been from above downwards; thereby rendering it probable that the deceased was standing up, or that her head was raised at the time the wound was inflicted. Further, as the brick with the spots was on the left hand in the descent, and the wounded artery was on the right side, it is probable that the deceased was face to face with her assailant in the act of ascending the stairs, and that she was killed by being precipitated backwards to the bottom. The position in which the body was found in the cellar corroborated this view. (*See Med. Gaz.* xxxvii. 612.)

*Inspection.*—In examining a dead body, it is proper that attention should be paid to the state of the mouth and throat. Assassins who make their attack during sleep, sometimes endeavour to close the mouth, or to compress the throat, so as to prevent an alarm from being given. In the case of the *Duchess of Praslin*, there were the marks of finger-nails around the mouth. In another instance, ecchymosed impressions, as if produced by a hand, were found upon the throat of the deceased. The hands of the deceased should always be examined; many cuts, excoriations, or incisions, found upon them, especially if on the dorsal surface, will indicate that there has been a mortal struggle with the assailant. In the inspection, the examination of the *stomach* should not be omitted. The presence or absence of food, mucus, or blood, may furnish evidence of considerable importance in the elucidation of the case. Thus, in the stomach of the *Duchess of Praslin*, a quantity of bloody froth was discovered. This rendered it certain that she had lived sufficiently long to swallow a quantity of saliva mixed with blood, and that probably she had made some attempts to

give an alarm. The fact that several days have elapsed since death, will not prevent the discovery of food in the stomach, provided it has been taken within one or two hours before death: since the digestion of food does not appear to go on to any perceptible extent after death. I have thus discovered food in the stomach twenty-eight days after interment. This question connected with the digested or undigested state of the food found in the stomach, very frequently arises on criminal trials.

---

## CHAPTER XXV.

DISTINCTION OF SUICIDAL FROM ACCIDENTAL WOUNDS—IMPORTANT IN CASES OF LIFE-INSURANCE—WOUNDS ON THE THROAT—FACTS INDICATIVE OF SUICIDE, HOMICIDE, OR ACCIDENT—IMPUTED OR SELF-INFLICTED WOUNDS—MOTIVES FOR THEIR PRODUCTION—CHARACTERS OF IMPUTED WOUNDS—RULES FOR DETECTING FALSE CHARGES OF MURDER.

*Suicidal wounds.*—It is not often that any difficulty is experienced in distinguishing a *suicidal* from an *accidental* wound. When the wound has really been suicidally inflicted there are generally to be found about it very clear indications of design; and the whole of the circumstances are seldom reconcilable with the supposition of accident. But if the position of the deceased with respect to surrounding objects has been disturbed, if the weapon has been removed, and the body transported to a distance, then it will not always be easy to distinguish a wound accidentally received, from one inflicted by a suicide or a murderer. The evidence of those who find the body can alone clear up the case; and the medical witness may be required to state how far this evidence is consistent with the situation, extent, and direction of the wound by which the deceased has fallen. It is unnecessary to dwell further on this subject, since the observations made in the preceding pages will suggest to the practitioner the course which he has to pursue. Circumstantial evidence is commonly sufficient to show whether a wound has been accidentally received or not; but as an accidental wound may sometimes resemble one of homicidal or suicidal origin, so it follows that it is not always possible for a medical jurist to decide the question peremptorily from a mere inspection of the wound. Homicide is only liable to be confounded with accident in relation to *contusions* and *contused* wounds. In cuts and stabs, the evidence of design will be in general too apparent to allow of any doubt being entertained respecting the real origin of the injury. It would not be difficult to produce many instances in which murderers, in their defence, have alleged that the wounds observed in the bodies of their victims were of accidental origin, and the allegations have been clearly refuted by medical evidence. A witness must be prepared, therefore, in all cases in which death has taken place in secrecy, and the nature of the wound is such as to render its origin doubtful, to be clearly examined by counsel for a prisoner charged with felonious homicide, as to whether the wound might or might not have been accidental. Our law requires that it should be rendered evident to a jury, before such a charge can be sustained, that the fatal wound could not have been accidental or suicidal. Hence this preliminary question is deserving of serious attention from a medical jurist.

The death of a party from wounds has hitherto been considered as a subject connected with a criminal charge; but an investigation of the circumstances under which death ensues, is occasionally rendered necessary when the deceased has effected an insurance upon his life. The policy of life-insurance is in some cases rendered void by the act of self-destruction; and therefore an individual