The Scene of Crime Part 2

Cont from Vol 9 No 8

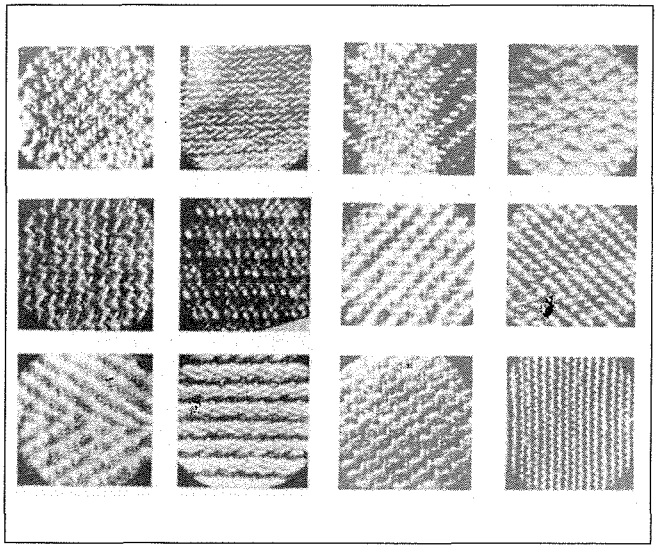
What is found on the scene of a crime and its collection as physical evidence.

Clothing

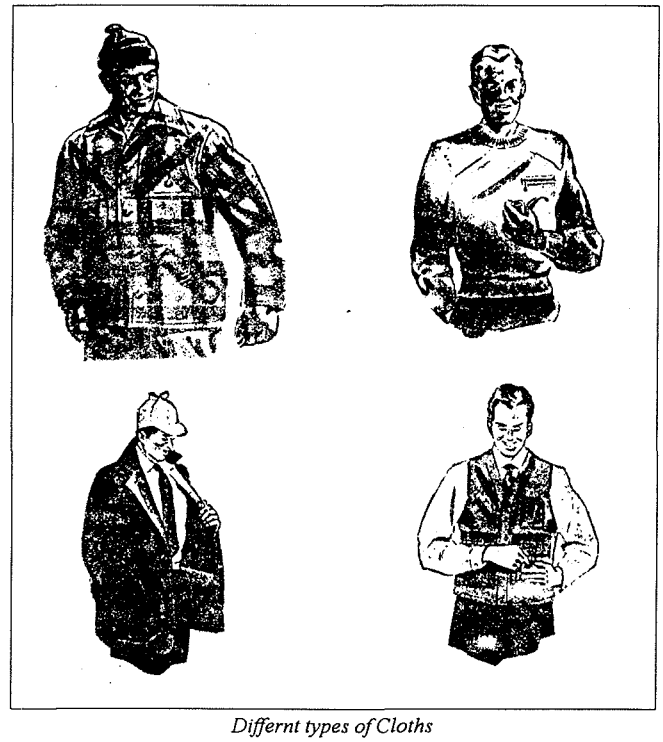
Clothing is most important in crime cases. First of all a witness may often recall a man's clothing rather than his face or stature, and at a distance the general witness can give a description of what a man was wearing when he wouldn't notice his face.

Clothing is constructed of a very wide range of materials the most common being silk, wool or cotton. Other materials include linen, nylon and other syntetic fibres.

Such clothing is so important when dealing with crime, because significant evidence may be picked up and carried on them. It is possible that clothing will pick and carry minute fragments of glass when the culprit breaks a glass or a bottle. Hence, great care is to be taken when on the scene, that the cloths the victim or the suspect are wearing are not to be cleaned or touched unnecessary but these must be carefully marked and packed seperately and immediately taken to the Laboratory for microscepic examination. When however, both the victim's cloths and the suspect's cloths are brought in for examination, care must be taken that while one bundle of clothes is opened the other bundle is always closed so that they will never come in contact with one another. Shoes, are classified with clothing and tackled in avery cautious way. These must, when picked from the scene of crime be packed separately from one another. Special care is taken when the criminal has smears of tar, paint or even chewing gum fixed to his shoes, not to mention mud, greases and whatever he may have treaded upon. Hence, The Locards Principal of exchange is taking place.



Common vartions of weave pattern



Differnt types of Cloths

Blood - Saliva - Body Fluids

In most crimes of violence, it is most essential that a sample of blood be taken from the victim whether dead or alive. If any blood has been shed, by either the victim or the suspect, enough must be elevated for testing purposes. Blood is one of the most frequent and important types of evidence encounteed in criminal investigation.

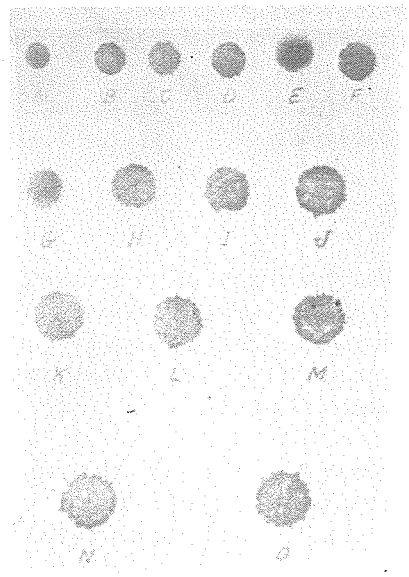
In murder, assault, rape or similar crimes of violence, blood may occur on:
a) the victim's person.
b) the scene of crime.
c) the culprit.
d) the weapon.

The layout and distribution of blood may be used to intercept and reconstruct details of the crime or such event producing bleeding such as the position of the victim at the time of shedding blood and the part of the body from which blood was lost.

It's distribution, quantity, and the appearance of the spots or bloody areas will usually give vital information and layout of the events. Blood spots in particular can be interepreted in terms of their origin, and the distance and angle at which they were travelling before they reached the ground.

The victim's blood on a suspect is of obvious importance like in a crime of great violence such as stabbing with a knife. Such weapon would normally be bearing the

victim's blood thus establishing as to determine that the weapon is the one sought. When there is a struggle and the criminal sheds blood, or when a burglar enters a building and hits with something then he bleeds or he may fall in the dark and injures himself, all this will help in acquiring a sample of blood from the intruder which blood is invaluable for the investigation. Preservation of items containing blood must always be labelled with all necessary documentation and must always be taken when handling such exhibits to prevent blood borne when handling such exhibits to prevent to prevent blood borne deseases. Some of these deseases can be absorbed through the eyes, the nose, the mouth and penis. Saliva is very dangerous especially when you are speaking to a carrier. Extreme hygiene is to be exercised before and after touching blood, saliva, etc... at the scene of crime.



Effectofvelocituy on blood spatters. Blood dropped perpendicular the distances indicates: A 3in., B 6in.; C 9in.; D 1 ft.; E 1.25 ft.; F 1.5 ft.; G1.75 ft.; H 2ft.;I 3ft.; J 3.5 ft.; K 4 ft; L4.5 ft.; M 5 ft.; N 5.5 ft.; O 6 ft.

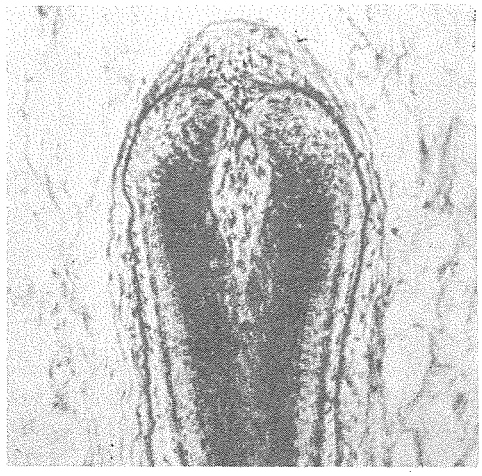
Effect of angle on blood spatters.Blood dropped three feet striking at the angles indicated:
A 90°; B 80°; C 70°; D 60°; E 50°; F 40°; G 30°; H 20°; I 10°.

Effect of velocity on the blood spatters with angular impact at 25°: A-3 inches, B-6 inches, C-9 inches, D-1 ft., E-1.5 feet, F-2 feet, G-3 feet, H-4 feet, I-4.5 feet, J-5 feet, K-6 feet.

Hair

Hair is so important as physical evidence that it is essential that it should be collected in every case in which it occurs mainly in rape or other sex crime. On the other hand we can find hair in crime involving struggle in which a victim may have hairs grasped in his hands or under his finger nails. The scene of crime may often contain hairs to a considerable extent wherever they happen to be is one of the very fortunate circumstances for the criminal investigator. On the other occasions hair will be present on weapons used in the commission of a crime. A very suitable method of obtaining head hair is to see and use a clean, fine toothed comb. This will provide, in most instances a sample of hair to be compared with the hair that would have been lost by an individual during the commission of a crime. In homicide, victim's sample of hair should always be removed before burial even though no hair is then known to exist among other items of microscopic evidence, because would some appear later we would have it aside and save a lot of time and trouble to obtain a sample.

An experienced laboratory worker will immediately distinguish between animal hair and human hair which will help the investigator to establish more in detail and reconstruct the scene of crime. Of all the common types of evidence that requires study, only hair, blood and semen are common and come directly from the person. It is to be assumed that hair is actually unique to the individual, it is then one of the three types of materials which might be used directly for personnel identification by laboratory methods.

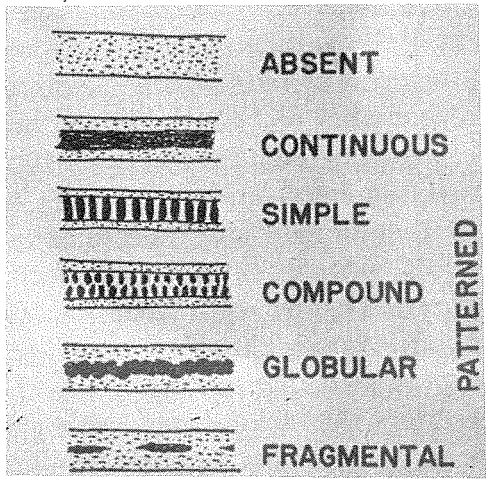


Section of Hair Follicle

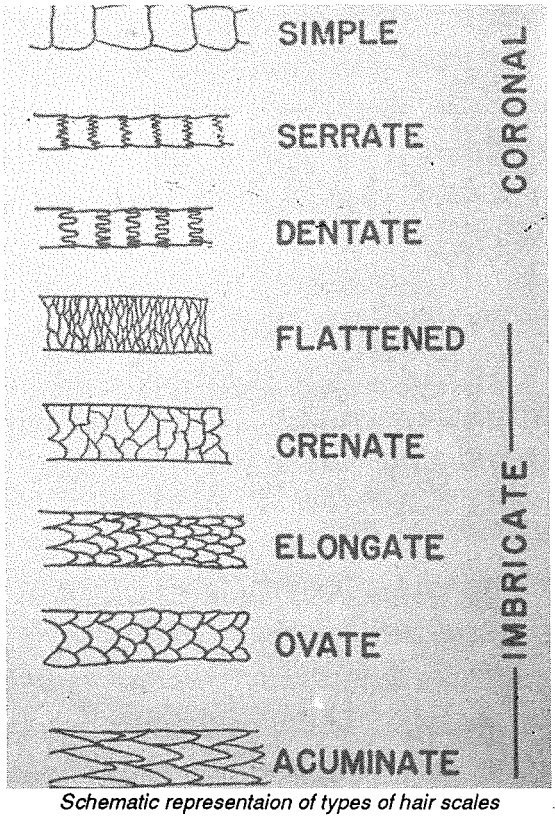
Semen

Though blood is the most common physiological fluid which requires investigation, semen runs to a close due to the high incidence of sex crimes and other crimes associated with sex irregularities. On other occassions other fluids such as saliva, urine, sweat, nasal mucuos and tears may be encountered. Seminal stains shall however, be expected to appear on the clothing of the victim or the perpetrator, particularly underwear. Stains may also be present on bedding, on matteresses and on automobile robes.

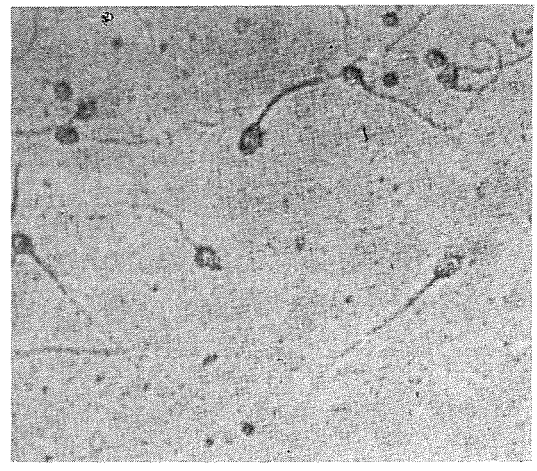
In addition to these stains which may be spotted, the female victim of an assault may have considerable sperm in the vagina. In these cases a smears test is necessary to be taken by the attending physician. These particular stains are searched for by means of the ultra-violet lamp in which case these stains flouresence very strongly with a bright white or bluish-white colour. Apart from this method seminal stains may be located by feeling them because such stains have a stiff crusted feel when dry.

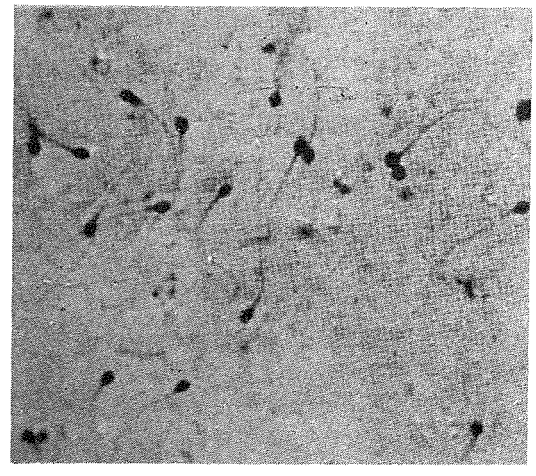


Schematic represation of types of Hair Medullas



Schematic representaion of types of hair scales





Human Spermatoza Above unstained, Below stained with safranin.