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## Police Science Technical Abstracts and Notes

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## POLICE SCIENCE TECHNICAL ABSTRACTS AND NOTES

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Edited by

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Abstractors

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Seminar on Testimony—Ordway Hilton, David J. Purtell, Harry M. Ashton, C. D. Brooks, Donald Doud. *Journal of Forensic Sciences*, 2 (2): 177 (April, 1957). Introductory remarks by Ordway Hilton. "None of us are 'expert' expert witnesses. Thus, no one can tell how to do the job perfectly. A great deal of testimony is highly personalized although the mechanics of presentation should be similar for all workers. Each of us has the same bones in our skeleton, but the way flesh and skin are packed around them makes each a different appearing person. So, too, with the testimony; we each build a different presentation around a similar framework. Some witnesses handle a difficult subject in one way, whereas another witness would be a miserable failure if he attempted to follow exactly the same procedure. You can imagine how ineffective you would be if someone else wrote out your testimony, and you memorized it and recited it purely from memory."

The divisions for the present discussion are made on a rather mechanical basis, following to some extent the problems as they are encountered in the course of a presentation. The topics are "Qualifications", by David J. Purtell; "Organization and Presentation of Document Testimony", by Ordway Hilton; "Illustrating Testimony", by Harry M.

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Ashton; "Cross Examination", by C. D. Brooks; and "Special Problems", by Donald Doud. The brief discussion of the varied topics will be of great interest to all readers. (WEK)

Chemical Findings in Cases of Fatal Barbiturate Intoxications—Irring Sunshine and Earl Hackett. *Journal of Forensic Sciences*, 2 (2): 149 (April, 1957). Data are presented on the tissue distribution of barbiturates following fatal intoxication. Barbiturates tend to concentrate in the liver. The concentration of barbiturates in all other tissues, except the brain, is higher than the corresponding blood level. The brain barbiturate concentration is the same order of magnitude as that of the blood.

The blood barbiturate level is not a reliable index of fatal barbiturate intoxication. In 75% of the cases studied, the blood barbiturate levels were lower than those of many hospitalized patients who survived. In the cases studied, twice as many fatalities occurred in women as in men. The incidence of fatal barbiturate intoxication in colored people is negligible.

Barbiturates, if originally present, may be detected in samples of formalin-fixed tissues for periods as long as three years after the original formalin-fixation. The formalin used for fixation also contains detectable amounts of barbiturates. Following formalin-fixation, the distribution of the barbiturates in the tissues changes, and the highest concentration is usually found in the spleen. (WEK)

The Medical Expert Witness—Positive—Negative—Maybe—Harley J. McNeal. *Jour-*

*nal of Forensic Sciences*, 2 (2): 135 (April, 1957). Lawyers and medical experts alike are urged to give serious thought to this confusing situation as it now exists in the law. Certainly a "better" kind of justice would be achieved on behalf of both the plaintiff and defendant in personal injury cases if medical testimony could be limited to testimony as to a "probable" causal relationship, and rejecting testimony which concerns itself with a "possible" causal relationship, which definitely reduces such testimony to that of speculation and conjecture.

Cases should not be tried in part upon speculation or conjecture, but should be tried on the broad premise of "reasonable medical certainty" and "probable cause." Only by following this basic premise will our courts render justice unto the parties seeking an adjudication of their differences arising as a result of an inability to agree upon the nature and extent of the personal injuries involved in the particular controversy before the court. (WEK)

#### Southern Police Institute Seminars, 1958

The following seminars will be held:

Delinquent Youth and Society—January 6-17, 1958

Police Administration—January 27-February 7, 1958

Scientific Crime Investigation—March 3-14, 1958

For further information write David A. McCandless, Director, Southern Police Institute, University of Louisville, Louisville 8, Kentucky (DA McC).

**Homicide Seminar**—Seventh Annual Seminar on Homicide Investigation will be held at the University of Cincinnati College of Medicine and The Kettering Laboratory, November 11 to November 16, 1957. Applications must be submitted by September 15, 1957. For further information contact Frank P. Cleveland, M.D., The Kettering Laboratory, Eden and Bethesda Avenue, Cincinnati 19, Ohio. (JDN)

**A Spotlight**—The Cause of a Million Dollar Fire—Thomas Sachstetter, *Kriminalistik*, 11 (2): 66-7 (February, 1957). A decoration, covered by asbestos, intercepted one quarter, one third of the beam of a 10 KW spotlight.

The inflammable material underneath was heated to the point of combustion. Experimental studies revealed that temperatures as high as 193°C. could be produced on objects 20 cm. from the lamp. (JDN)

#### Ante-Mortem and Post-Mortem Bruises of the Skin, Their Differentiation—I. Robertson and R. A. Mansfield, *Journal of Forensic Medicine*, 4 (2): 2 (January-March, 1957).

This article discusses the difficulty of differentiation between bruises of the skin resulting from blows shortly prior to death and bruises resulting from impacts which have occurred shortly after death. The latter may result from the body being carried against stones in a rapidly moving stream of water, by attendants handling the body, or even by resuscitative efforts of a well-meaning person. The paper emphasizes the ease with which bruises occur after death and the great difficulty (or even the impossibility) of distinguishing when it occurred in relation to the person's death. This is a scholarly consideration of a problem which, when one is confronted with it, is extremely perplexing. (FRD)

#### Ball-Point Pens and Ink—Norman L. Anderson, *Dyestuffs*, 41 (8): 203-9 (December, 1956).

The author traces the evolution of writing inks and points out the rapid acceptance of the ball-point pen. This pen requires a special ink of high tinctorial value (20 times aqueous ink since the average pen cartridge holds 1 ml. of ink, and writes a line 10,000 to 15,000 feet long, i. e., 50,000 to 70,000 words). The vehicle (carbitols, glycols, or oleic acid) must have low vapor pressure in order to eliminate evaporation at the ball with resulting clogging. The ink must have good storage properties and must be sufficiently viscous so as not to seep out at the ball or at the back end of the tube. Viscosity varies with the construction of the point and is regulated by the kind of dye. pH must be controlled to prevent corrosion. Ink formulation has had to be modified so as to eliminate smudging, feathering, and bleeding through the paper. Modern inks contain light fast dyes which are soluble in glycol type solvents. Various suitable dyes are discussed. (OH)