

1958

Police Science Technical Abstracts and Notes

Follow this and additional works at: <https://scholarlycommons.law.northwestern.edu/jclc>

 Part of the [Criminal Law Commons](#), [Criminology Commons](#), and the [Criminology and Criminal Justice Commons](#)

Recommended Citation

Police Science Technical Abstracts and Notes, 49 J. Crim. L. Criminology & Police Sci. 289 (1958-1959)

This Criminology is brought to you for free and open access by Northwestern University School of Law Scholarly Commons. It has been accepted for inclusion in Journal of Criminal Law and Criminology by an authorized editor of Northwestern University School of Law Scholarly Commons.

POLICE SCIENCE TECHNICAL ABSTRACTS AND NOTES

Edited by
Joseph D. Nicol*

Abstractors
Ordway Hilton†

Jan Beck‡

William E. Kirwan§

The Coroner: A Man More Sinned Against Than Sinner?—David Stewart Helberg, *Journal of Forensic Sciences*, 3(2): 156-73 (April, 1958). A short, but interesting, discussion of the coroner system. A few pros and cons leading to the conclusion—it is idle to suggest that the coroner system would be “all right” if it could just be changed into something else. (WEK)

Differentiation of Barbiturates for Clinical and Medicolegal Purposes—Gabriel L. Plaa, Fern B. Hall, and Charles H. Hine, *Journal of Forensic Sciences*, 3(2): 201-9 (April, 1958). A method has been described for differentiating barbituric acid derivatives extract from tissues or stomach contents. Following the initial extraction and concentration from the tissue, the derivative is purified by ascending paper chromatography. The spot is located by examination under shortwave ultraviolet light or by contact printing on reflex photographic paper exposed to ultraviolet light. Final differentiation is based on differences in ultraviolet absorbance measured at a pH greater than 12.5 and at pH 10.5. The results with 69 post-mortem samples analyzed in this manner are discussed. (WEK)

A Microbeam X-Ray Diffraction Technique of High Sensitivity—Bani R. Banerjee, *Journal of Forensic Sciences*, 3(2): 210-25 (April, 1958). A comprehensive review of microdiffraction techniques in general, is followed by the description of a very powerful experimental diffraction technique consisting of the application of a microbeam x-ray

source to the examination and study by diffraction of very minute amounts of “powder” crystalline particles, in the order of a few micrograms. The sensitivity and potential of this unique combination is illustrated by experiment.

This method should be particularly useful in detection problems such as forensic studies and crime investigations. It should also be applicable to many scientific investigations where sample-size is limited. (WEK)

Organic Phosphorus Insecticides and Post-Mortem Blood Cholinesterase Levels—Charles S. Petty, Marjorie P. Lowell, and Elizabeth J. Moore, *Journal of Forensic Sciences*, 3(2): 226-37 (April, 1958). A survey of the forensic pathology aspects of the organic phosphorus insecticides has been presented. The true (RBC) blood cholinesterase level of 130 post-mortem subjects has been determined and found to be 1.47 micromoles of acetylcholine utilized, with a standard deviation of 0.34 and a range of 0.54-2.38. The data were subdivided by sex, color, age, and the cause of death, and no significant difference was demonstrated. (WEK)

Another Line for Safety—Dorothy Fagerstrom, *Law and Order*, 6(6): 5 (June, 1958). The author reports a development by Dr. John V. N. Dorr for traffic safety consisting of painting an additional white line along the right hand edge of highways. On test strips where this outer-edging has been used accidents such as sideswiping of cars moving in the same direction had been reduced as well as preventing accidents with cars going off the edge of the road. Connecticut has experimented with yellow paint for the outer-edging line. (OH)

Spotlight on “Driver Failure”—D. Louis Tonti, *Law and Order*, 6(6): 6 (June, 1958). The author,

* Assoc. Professor, School of Police Admin. and Public Safety, Michigan State Univ., East Lansing.

† Technician, Wisconsin State Crime Lab., Madison.

‡ Examiner of Questioned Documents, New York.

§ Director, N. Y. State Police Scientific Lab., Albany.

Executive Director of the Garden State Parkway, New Jersey, discusses the need for scientific investigation of accidents to determine what other factors besides speed are contributing. He emphasizes the need for knowing about psychological and physical tests for drivers to lower the accident rate pointing out that parkways where high speeds are permitted have a lower accident rate over all than other roads in the nation. (OH)

The Determination of Time Elapsed Since the Firing of Shotgun Shells (I)—A. Schoentag and J. Roth, *Archiv fuer Kriminologie*, 121, (1-2): 8-12 (January-February, 1958). By means of an analytical scale graduated to 0.1 mg the gradual escape of powder gases impressed into the pores of the cardboard cylinder at the time of firing is measured over a period of days. The weight loss data are plotted on a curve which is compared with the curve of a fired shell of the same make and type. The time of firing of the questioned shell can be estimated to within ± 3 hours when the time lapse does not exceed 4 days. Beyond 6 days the figures are not reliable. (JB)

Poison Concealed in Teeth as Preparation for Suicide—Christa Kaiser, *Archiv fuer Kriminologie*, 121(3-4): 66-74 (March-April, 1958). Prompted by fictional accounts of suicide by means of poison concealed in teeth and by the lack of professional literature on the subject, the author conducted a series of experiments to produce suitable containers. A hollowed-out and reinforced first molar provided a receptacle for a vial made of plastic (Piacryl), coated with sodium silicate, and containing at least 60 mg of nicotine. A telescoping crown made up the removable cover. Other variations were produced to contain a fatal dose of sodium or potassium cyanide (JB)

The Development of Latent Fingerprints on Polished Metal—A. Kobabe, *Archiv fuer Kriminologie*, 121(1-2): 51-53 (January-February, 1958). Methods are outlined to overcome difficulties met in the usual powder development of latent fingerprints on polished metal (tin plate). Equal parts of dragon's blood and a fluorescent green powder, "A 58", are poured over the surface, the excess tapped off, and the developed impression heated until the powder melts and fuses to the metal. The result is photographed in ordinary light

or in UV. A finely divided aniline pigment, "pig-mosolblau 5 G" can also be used. (JB)

An Ingenious Case of Safe-Breaking—F. Franssen, *International Criminal Police Review*, No. 118: 136-7 (May, 1958). A small safe (Fireproof box, 19" x 19" x 20") was placed with its back against one side of a door casing. Between the safe door and the other vertical of the door a heavy (50 ton) screw jack was positioned horizontally. Pressure exerted by the jack broke the safe door. (JDN)

Crime Prevention—The New Approach—H. P. Griffiths, *The Australian Police Journal*, 12(1): 6-28 (January, 1958). The work of the police service of the City of London in making the public security conscious is described. As a result of this effort, crime against property decreased 25.6% in the period of 1951 to 1955. Keeping the British public informed as to the cycle of crimes by means of pamphlets has played a major role in this drive. (JDN)

Always Choose the Right-Sized Corpse!—Martin Escobar, *International Criminal Police Review*, No. 117: 117-21 (April, 1958). The substitution of a dead man in an insurance-fraud fire was determined by showing that the skeletal remains were those of a man 6-7 inches shorter than the alleged deceased. Other identification features were destroyed in the fire. (JDN)

Identification of Ball-Point Pen Ink—E. Martin, *International Criminal Police Review*, No. 114: 18-23 (January, 1958). Dried ball-point pen writings are compared by paper chromatography. Chromatography paper is treated with a 5% solution of DC550 silicone in ether and dried. Small pockets are made three-quarters of an inch from one edge. The inks to be tested are placed in the pockets and these are stapled shut. Standards of the supporting paper are also tested. The chromatogram is developed with 70% acetone for two hours after which time the paper is dried and examined by visible and ultraviolet light. (JDN)

Smith & Wesson Model 41 Target Pistol—J. S. Hatcher, *The American Rifleman*, 106(1): 15-9 (January, 1958). A discussion of the new .22 cal. Smith & Wesson Model 41 Target Pistol. Rifling is given as six lands and grooves, right twist (1 in