Journal of Criminal Law and Criminology

Volume 47 | Issue 3 Article 13

1956

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, 47 J. Crim. L. Criminology & Police Sci. 387 (1956-1957)

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

Frank Dutra, M.D.†
Richard C. Steinmetz, Ph.D.‖
Sidney Kaye, Ph.D.‡
Ralph F. Turner¶
William E. Kirwan§
Ordway Hilton††

Estimation of the Level of Blood Alcohol from Analysis of Breath—Harger, Forney, Baker, *Quarterly Journal of Studies on Alcohol, 17* (1): 1–18 (March, 1956). A modification of the original Harger Drunkometer technic. The CO_2 absorption tube is eliminated, rebreathed air is collected in polyethylene bags and pumped through ampule reaction tube containing the usual Drunkometer permanganate-sulfuric acid solution. A gas metering pump replaces the water displacement tank and provides an accurate measure of volume of breath used. Correlation studies are reported using the rebreathing technic as compared with blood alcohol levels determined by analysis of venous and capillary blood. (RFT)

Alameda County, California, Coroner to be Appointed—The voters of Alameda County, California, recently amended the County Charter to provide that the Coroner would no longer be elected but would be appointed by the Civil Service Commission. Qualifications of candidates for examination for the post have not yet been established, but there is reason to believe that only qualified pathologists will be acceptable for examination. (FRD)

The Role of Photography in the Coroner's Office—S. R. Gerber, Lester Adelson, Lawrence Johnson, *Medical Radiography and Photography, 32* (1): 15–20 (1956). Examples of photography in a medicolegal office. (FRD)

Radiography and Photography in Problems of Identification: a Review—Anon., *Ibid.*, i, 34–5 (1956). Application of antemortem and postmortem radiographs to the identification of cadavers. Even badly burned bodies can be identified by this procedure. (FRD)

Methods for Radiographing Molds and Replicas of Surfaces—A. G. Richards, *Ibid*, 24–9 (1956). By imbedding objects completely or partially in radiopaque liquids, the surface detail of objects can be recorded by radiography. Contrast is adjusted by choice and concentration of solutions such as $PbBr_2$, NaCl $BaSO_4$, CCl_4, KI, $ZnCl_2$. May be used tc record fingerprints of cadavers. (FRD)

Car Clouting—Brereton, *California Peace Officers*, 68 (July–August, 1955). Chief Brereton reviewed recent activity on the part of car clouters, involving particularly the cars of jewelry salesmen. He said, according to information gathered by Special Agent Huse, the trunks of cars manufactured by General Motors can be opened with one of nine master keys and that a majority of the thefts were committed against General Motors cars. He emphasized the fact that if anyone is appre-

* Technician, Dade County C.B.I. Laboratory, Miami, Fla.

† Eden Hospital, Castro Valley, Calif.

‡ Laboratory Director, Office of Chief Medical Examiner, Richmond, Va.

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

‖ Chief Special Agent, Mutual Investigation Bureau, Chicago.

¶ Professor, Dept. of Police Administration, Michigan State Univ., East Lansing.

†† Examiner of Questioned Documents, New York City.

hended while attempting to break into a car, trunk, or room of a jewelry salesman, be sure that the person or persons be carefully interrogated and identified, as such a person may be one of the "gang" responsible for the large number of thefts from wholesale jewelry salesmen. (RCS)

Medicolegal Applications of Blood-Grouping Tests.—A tentative supplementary report of the Committee on Medicolegal Problems, American Medical Association, prepared by Alexander S. Wiener, M.D., Brooklyn, N. Y., Ray D. Owen, Ph.D., Pasadena, Calif., Clyde Stormont, Ph.D., Davis, Calif., and Irving B. Wexler, M.D., Brooklyn, N. Y. *Journal of the American Medical Association, 161* (3): 233 (1956). In 1937, the first report of the American Medical Association's Committee on Blood-Grouping Tests was prepared and published. At that time, only the four A-B-O groups and three M-N types were in use. In 1952, a second report was published by the Association's Committee on Medicolegal Problems to cover the advances in the preceding 15-year interval, especially the Rh-Hr types. The developments that have occurred during the past four years necessitate a supplementary report, which appears on page 233 of this issue. The new report includes a discussion of the nomenclature of the Rh-Hr types, a description of certain recently discovered blood factors and blood groups and their medicolegal applications, the use of blood tests as substantial evidence of paternity as well as for the exclusion of parentage, and also a model blood test law. Of these topics, the nomenclature is most important and difficult. The diversity of nomenclature currently used in medicolegal reports has been a source of confusion and distress in courts, and the need for uniform terminology is pressing. Because of the controversy that exists in respect to terminology, it was the unanimous decision of the Committee to present their preliminary findings at this time in the form of a tentative report. (WEK)

Microscope Tricks and Treats.—Julian D. Corrington, *The Educational Focus, 27* (1): (April, 1956). A brief, but interesting article on tricks or stunts that can be performed under the microscope. These intriguing demonstrations can be shown to visitors that are always a part of laboratory routine. "Endoparasitic Paramecia", "Beelzebub in ze Milk", "End of the Microcosm", "Communistic Amoebas", and "Creation of Matter" are the stunts mentioned. Details for their performance are given. Dr. Corrington promises more interesting tricks to come in future issues. (WEK)

Color Test for Sugar and Blood in Urine—E. Sawicki, *Chemist Analyst, 45* (2): (June, 1956). Glucose was found to be an interfering substance in tests for blood and urine, using solid benzidine-sodium perborate-potassium biphthalate as a reagent. Because a positive color reaction is obtained with either blood or sugar, or both, standard specific tests must be used to ascertain which is present. Tap water, formaldehyde, and ferric chloride have also been found to give the blue color. It is apparent that tests for blood using solid benzidine-peroxide mixtures or filter paper procedures involving benzidine should be used with caution, for reducing sugars, if present, may give a false positive reaction. (WEK)

The Problems of Arsenic in American Cigarette Tobacco—Henry S. Satterlee, *New England Journal of Medicine, 254:* 1149 (1956). The salient fact of this paper is that an American cigarette today contains significant amounts of arsenic. Perhaps this may be another factor to account for the higher incident of lung cancer among smokers. Cigarettes twenty years ago contained on an average of 12.6 micrograms of arsenic per cigarette. Whereas in 1950 this was 42 micrograms. In contrast to this, Turkish or Macedonian cigarette tobacco contains only the faintest trace. The explanation suggested that American tobacco soil has been impregnated with the insecticide lead arsenate and now the tobacco roots are picking it up. This might be so. Suggestions are further proposed that sublethal amounts of arsenic inhaled and accumulated in the body may be carcinogenic.

However, the author agreed that much more should first be known concerning the metabolism of arsenic especially in smokers. This paper may even have some medic-legal value beyond the importance or scare of cancer. Since a "chain" smoker is inhaling continued traces of arsenic, and since arsenic is cumulative, this would then result in an elevated so-called "normal" arsenic level. (SK)

Policeman's Non-Official Role in Combating Gangs and Vandalism—S. H. Jameson, *The Quarterly Journal of the Association for Professional Law Enforcement, 3* (1): 1–3 (June, 1956). A brief review of the psychological basis for juvenile gangs and their activity. (JDN)

Heroin and Crime—G. P. White, *Ibid, 3* (1): 4–8 (June, 1956). A discussion on the theme "While all criminals may not be addicts, all addicts are criminals." The author shows the correlation between frequency and location of burglaries and number and location of addicts. (JDN)

Report on Integration of Law Enforcement in Los Angeles County—L. J. Sunyich, *Ibid*, 9–12. A suggested plan to obtain uniform, metropolitan policing through inter-departmental cooperation rather than through legislation. (JDN)

A Scheme for the Systematic Analysis of Lipsticks—L. Smith, *Perfumery and Essential Oil Record, 46:* 269–70 (August, 1955). The separation procedure is as follows:

1. Remove volatile solvents by heating to 105° C for 1–2 hours.

2. Extract with hot chloroform or benzene (F1).

3. Halogenated fluorescins are removed from residue (R1) by hot 95% alcohol.

4. Evaporate solvent from F1 and extract residue with hot glacial acetic acid (F2). Residue R2 may be waxes.

5. Add water to F2 and extract with ethyl ether. Polyglycol groups and water-soluble dyes are in aqueous layer; oil-soluble dyes are in ether layer. Residues obtained are identified by acid value, ester value, and melting point.

Further subdivisions are based upon hydrolysis of esters and the identification of alcohols obtained. These latter steps are probably not suited to quantities of lipstick available in criminal cases. (JDN)

Homicide Investigation, Sixth Annual Seminar—Presented by Institute of Industrial Health at College of Medicine and The Kettering Laboratory, University of Cincinnati, Cincinnati, Ohio, November 12–17, 1956. Address all inquiries to: Frank P. Cleveland, M.D., The Kettering Laboratory, Eden and Bethesda Avenues, Cincinnati 19, Ohio. (JDN)

Search Before the Desk—Anon., *Spring 3100, 27* (5): 4–7 (May, 1956). An illustrated article outlining a procedure designed to reveal any hidden weapons. Watches, mirrors, lighters may be dangerous to life; ball-point pens can be used to facilitate escape. (JDN)

TV Camera Helps Control Traffic in Hamburg—Anon., *The Police Review* (London), *64* (3307): 377 (May 25, 1956). A television camera covering a busy intersection permits personal control of signals from headquarters. It is possible that one man could control several intersections. (JDN)

Physical Methods for the Identification of Narcotics—Part IV-A and IV-B, C. E. Hubley and Leo Levi, *U. N. Bulletin on Narcotics, 7:* 20–84 (Jan.–April, 1955). The first part discusses the Infrared Spectroscopic Method from the standpoint of origin of spectra, instrumentation, sample preparation, and interpretation of spectra. The second part deals with the Infrared Spectra of Narcotics and Related Alkaloids. Mineral Oil Spectra and Chloroform Spectra are given for 89 compounds. (JDN)

Pressed Bromide Method of Infrared Spectrographic Analysis of Narcotics—J. J. Manning, *U. N. Bulletin on Narcotics, 7:* 85–100 (Jan.–April, 1955). Presents an atlas of 23 narcotics and mixtures of narcotics and

diluents obtained by pressing a mixture of specimen and KBr into pellets and mounting pellet in a Perkin-Elmer model 21 infrared spectrometer. (JDN)

Fate of Morphine, Diacetylmorphine, and Codeine in the Human or Animal Body—Harry Peterson, *U. N. Bulletin on Narcotics, 7:* 23–9 (Sept.–Dec., 1955). Free and conjugated morphine can be found in the feces and urine of subjects administered morphine, heroin, and codeine. (JDN)

Micro-identification of the Opium Alkaloids—E. G. C. Clarke and Margaret Williams, *U. N. Bulletin on Narcotics, 7:* 33–42 (Sept.–Dec., 1955). Crystal and color tests for nineteen alkaloids are given and rated for sensitivity. Photomicrographs accompany article. (JDN)

The Reaction of 3-Hydroxy-N-Methyl-Morphinan (Dromoran) with Chloroplatinic Acid—Leo Levi, *U. N. Bulletin on Narcotics, 7:* 43–59 (Sept.–Dec., 1955). A report of studies of the chloroplatinic acid derivative of dromoran. Crystals, ultraviolet spectra, infrared spectra and x-ray diffraction data are given. (JDN)

Analytical Methods for Reserpine—W. H. McMullen, H. J. Pazdera, S. R. Missan, L. L. Ciaccio, and T. C. Grenfell, *Journal of the American Pharmaceutical Association, 44:* 446–53 (July, 1955). Methods suitable for crude material and pharmaceutical preparations are given. Ultraviolet absorption patterns are given. A fluorometric method suitable for the determination of reserpine in blood is described. Reserpine can be separated by chloroform extraction from aqueous acid solution. Further separation by paper chromatography is accomplished by propylene glycol: methanol:glacial acetic acid::50:50:1 as the immobile phase and benzene:cyclohexane equilibrated with propylene glycol::1:1 as the mobile phase. Bands are located by fluorescence (radiation source 390 mμ). (JDN)

One Officer and a Suspicious Car—Anon., *Spring 3100, 26* (10): 4–6 (November, 1955). The recommended procedure for one patrolman, on foot, to follow in investigating the occupants of a suspiciously parked car. (JDN)

Photographic Evidence in a Child Cruelty Case—G. Webster, *The Police Journal* (London), *29* (2): 113–6 (April–June, 1956). Photography helped materially in bringing before the court the nature of injuries inflicted in a child cruelty case. (JDN)

Sheep-Worrying: A Successful Investigation—J. O. Cowley, *The Police Journal* (London) *29* (2): 116–9 (April–June, 1956). By examining the excreta of the suspect dogs, combing the dogs and the dead sheep, sufficient evidence in the form of sheep blood and wool on the dogs and dog hair on the sheep was discovered. The excreta contained wool. (JDN)

The Photographing of Finger Impressions on Mirrors—W. E. Crookes, *The Police Journal* (London), *29* (2): 119–21 (April–June, 1956). If a ground glass of fine texture is placed with ground side against the developed prints, the prints may be photographed without the second image. (JDN)

Identification of Suicide Notes—Karl Karpisek. *Kriminalistik, 10* (2): 50–3 (Feb., 1956). The author points out several problems concerning the comparison of suicide notes with previously executed writing. Because of mental stress, illness, intoxication, and other causes, the suicide writing may deviate from normally written standards. A precaution is also stressed to examine each note carefully for attempted forgery. (JDN)

Southern Police Institute—The Southern Police Institute, University of Louisville, announces its 1957 Mid-winter Seminars as follows: January 7–18, 1957, Delinquent Youth and Society; January 28–February 8, Police Administration; February 11–22, Police Records and Communications; March 4–15,

Scientific Crime Investigation. For details concerning tuition and enrollment write the Southern Police Institute. University of Louisville, Louisville, Kentucky. (OH)

The Ball Point Pen—Rudolf Mally, *Kriminalistik, 10* (2): 55–60 (Feb., 1956). The construction of ball point pens and the physical cause of characteristic peculiarities of writing by them is discussed. (JDN)

Neuhausen Pistol—E. J. Hoffschmidt, *The American Rifleman, 103* (2): 48–9 (Feb., 1955). A description of the mechanism of the Schweizerische Industrie-Gesellschaft, SP 47/8 SIG, Neuhausen Pistol. Breakdown instructions are given. (JDN)

A Rapid Method of Constructing Density Gradient Tubes—L. H. Tung and W. C. Taylor, *Journal of Polymer Science, 17:* 441–2 (1955). A nearly linear density gradient, ready for immediate use is prepared by introducing the lighter liquid into the heavier liquid in a mixing vessel. The mixed liquid is siphoned into the gradient tube at the same rate that the lighter liquid is introduced into the mixing vessel. Care is exercised to ensure complete mixing in the first chamber and no mixing in the gradient tube. Densities accurate to .0001 gms/cc can be measured by calibrating density gradient with suitable standards. (JDN)

Michigan State University Police Administration and Public Safety Program—Michigan State University has announced the enlargement of its program in the School of Police Administration and Public Safety to include six major study areas and a full program leading to a Masters Degree. Supplementing the present major study areas of law enforcement, police science, and crime prevention will be majors in correction work, highway traffic administration, and industrial security. Graduate studies will be made available in these same six fields. (OH)