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## Police Science Technical Abstracts and Notes

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## POLICE SCIENCE TECHNICAL ABSTRACTS AND NOTES

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**Initial Action at the Scene of a Crime**—W. D. Crowley, *The Australian Police Journal*, 17 (2): 105-11 (April, 1963). A good general discussion. The author cautions as follows, "Remember that in many important investigations it can be a distinct disadvantage to be forced into a situation where you are compelled to interview the offender before you are in possession of all available information." (JDN)

**Identification of Dead Bodies by Dentures**—Dr. Roland D. Moore, *Law and Order*, 11 (10): 64-66 (October, 1963). An article advocating compulsory embedding of identification in new dentures which is substantiated by citing two actual cases. (JDC)

**The M. O. System of Investigation and Reporting Arson**—William C. Alletto, *Law and Order*, 11 (10): 75-76 (October, 1963). This article points out that the investigator must understand the specific information to be secured during an investigation in order to prepare a crime report which emphasizes the modus operandi of the criminal and suggests that the fire investigation report cover essentially these things for M.O.—1. Time of offense. 2. Location. 3. Type of premises and the exact area where offense took place. 4. Point of entry and means used to set the fire. 5. Physical evidence found. 6. Motive. 7. Trade-marks or peculiarities. (JDC)

**Your Camera Has Wings**—C. E. Carlson, *Law and Order*, 11 (10): 60 (October, 1963). Aerial

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photos are of great help in showing large areas in crime scenes which cover a distance that cannot be shown in ground photos. When using the usual speed graphic camera with Tri-X film and a K-2 or G filter, several shutter speeds are suggested for different altitudes. Other basic data needed on aerial photographs are suggested for courtroom presentations such as size of the print, time of day, location, altitude, etc. in which the photograph was made. (JDC)

**Color Photography in Police Work**—Charles J. Horak, *Law and Order*, 11 (12): 48-52 (December, 1963). Given is a description of the physical layout and equipment used in the El Paso Texas Police Department Photograph Laboratory along with illustrative photographs. Also giving the advantages of color photographs in an area where skin tone differences are wide and thus become obvious in color photographs. Pointed out is the use of the Fotorite rapid print processer which makes it possible to finish an acceptable print in approximately fifteen seconds. (JDC)

**Micro Determination of Chloride in Blood Plasma and Cells by Spectrophotometric Analysis Using Solid Silver Iodate**—F. Lee Rodkey and Julius Sendroy, Jr., *Clinical Chemistry*, 9 (6): 668-681 (December, 1963). The study is an extension of the Sendroy method of chloride determination, by reaction with solid silver iodate, to the use of spectrophotometry for the analysis of blood, plasma, serum, or packed red cells, on a micro scale. The method is convenient, reproducible, and sensitive for an analysis of chloride in 0.02 millimeters of sample. The method involves preparation of a protein free filtrate, reaction with silver iodate, and spectrophotometric determination of the color development at 400 millimicrons. (JDC)

**Identification of Barbiturates by X-Ray. Diffraction Powder Patterns of their p-Nitrobenzyl Derivatives**—J. A. R. Cloutier and J. M. Manson, *Norelco Reporter*, 8 (3-4): 80 (May-August, 1961). Reprinted From: *Applied Spectroscopy* 15(3): (1961) p-Nitrobenzyl derivatives of barbiturates are free of polymorphisms. 1 mg of the barbituric acid, 1 mg of Na<sub>2</sub> CO<sub>3</sub>, 1.5 mg of 1.5 p-nitrobenzyl chloride, 0.03 ml of H<sub>2</sub>O and 0.06 ml of ethyl alcohol are refluxed on boiling bath for (80°C) 1.5 hrs., filtered, washed with water and oven dried. (JDN)

**Use of "Primacord" as an Explosive Agent on Safes**—Anon, *RCMP Gazette*, 24 (9): 13 (September, 1962). Primacord is inserted into hole in safe and detonated; peeling front or removing door from safe. (JDN)

**Timely Inspection of Essential Value in Law Enforcement**—J. E. Hoover, *RCMP Gazette*, 24 (9): 2 (September, 1962), *FBI Bul.* 31 (5): (May, 1962).

1. Careful initial selection of qualified personnel.
2. An adequate training program.
3. Thorough inspections on a regular basis. (JDN)

**How Effective are Firearms Against Automobiles**—D. R. Simon, *FBI Bulletin*, 32 (10): 3-7, 28 (October, 1963). 158 gr. .38 cal. Special ammunition is relatively ineffective against a vehicle. 12 ga. rifled slugs were effective at ranges under 100 yards. At close range the .45 cal. submachine gun had the advantage of fire power to insure some projectile missing braces and penetrating vulnerable areas. The author cautioned against the danger of ricochets. (JDN)

**Gas Chromatographic Analysis of Lead Alkyls with Election Affinity-Detectors**—E. M. Barrall, II and P. R. Barringer, *Journal of Gas Chromatography*, 1 (8): 7-13 (August, 1963). Isomers of lead alkyls are separated on a column of 10% 1, 2, 3-tris (2-cyanoethoxy) propane. Either parallel or circular plate detectors may be used. Article reports the studies made of flow rate, standing current, applied voltage and column type. (JDN)

**Ripple Soles Misleading Evidence**—Anon, *The Police Chief*, 30 (3): 45 (March, 1963). Ripple sole shoe prints may appear to be made by shoes which appears to be three sizes larger than reality. (JDN)

**The Wigans Murders**—W. J. H. Polfrey, *The Police Journal*, 36 (6): 267 (June, 1963). The investigation into the death of three boys, all confessed to by one man. Lessons:

1. Apparent absence of motive (actually sexual stabbing).
2. Alibis, supported by relative, can be false.
3. Trivial items, such as street interview and name and address recorded by constable resulted in important lead. (JDN)

**Burglar Keys**—Anon, *RCMP Gazette*, 25 (3): 22 (March, 1953). Burglar found with keys having teeth filed and replaced by small pieces of nylon thread attached through little holes. "The nylon threads were sufficiently resistant to work the locks open and sufficiently supple to bend once the locks had been opened." (JDN)

**Forensic Neuropathology IX. Central Effects of Poisoning from Some Common Drugs**—B. Courville, *Journal of Forensic Sciences*, 8(3): 392-418 (July 1963). The problems presented by the untoward effects of common drugs, even those which predominantly affect the nervous system, are manifold. In this article the effects on the nervous system of the common drugs and medications capable of causing fatal poisoning are discussed. Poisoning with any of these agents might come to the attention of the forensic pathologist. The most common gross and microscopic change encountered in poisoning is congestion, with secondary hemorrhage. Cerebral anoxia is frequently seen, as are more complex methods by which intoxication in its many forms produces havoc in the delicate nervous mechanism. The effects of poisoning on the nervous system should be of special interest to the physician, for sooner or later he will be intimately associated with the unpleasant, if not lethal, effects of a drug which he has hoped will alleviate, if not cure, his patient's ills. (WEK)

**The Haptoglobins of Human Serum**—R. Giblett, *Journal of Forensic Sciences*, 8(3): 446-52 (July, 1963). Haptoglobin, an alpha-2 glycoprotein component of serum, can be differentiated into several phenotypes by starch gel electrophoresis. The method is highly accurate and reproducible when competently performed. In most populations, haptoglobin inheritance is clearly defined, and thus the determination of haptoglobin types can

provide useful information in cases of disputed paternity. (WEK)

**The Mechanism and Structural Effects of Poisons Upon the Brain**—Cyril B. Courville, *Journal of Forensic Sciences*, 8 (2): 179-99 (April, 1963). This is No. 8 in a series of articles by the same author. The frequent occurrence of neurological or psychiatric symptoms after poisoning suggests that the nervous system is quite susceptible to noxious agents. Even in fatal cases, however, structural changes in the brain are often minimal and nonspecific. Certain agents do produce structural changes in the brain, sometimes of a necrobiotic effect. When alterations are present it is often difficult to know the exact mechanism by which they were produced. Poisons may directly affect the brain through the circulation or indirectly through the kidneys or liver. The resultant lesions may be classified as those resulting from (1) changes in the circulation or walls of the blood vessels, and (2) specific effects of a noxious agent on the architecture of the brain or the structure of the individual cellular elements. Circulatory effects include congestion and hemorrhage, cerebral edema, focal areas of softening incident to ischemia, and patchy loss of nerve cells probably resulting from vasomotor changes. Alterations in the blood vessels consist of deposits of free fat in the walls, endothelial proliferation, hyalinization, and calcification. Gross architectural alterations occurring as residuals of intoxication include cerebral atrophy, focal cortical-subcortical softening and patchy demyelination or formation of cysts in the cerebral centrum. Cellular changes which occur are not characteristic of toxic states, but the localization of the changes is important because various poisons attack certain portions of the nervous system. Critical microscopic examination indicates that the cerebral cortex (or specific portions of it), the cerebral centrum, the basal ganglia, the cerebellum, the vital centers in the medulla, the cranial or spinal nerves, the spinal cord, and the autonomic nervous system may be selectively injured. (WEK)

**A Pictorial Guide for the Identification of Solid Dosage Forms**—R. C. Gupta, J. Kofoed, *Journal of Forensic Sciences*, 8 (2): 303-7 (April, 1963). A reference library of pharmaceutical solid dosage forms was reported in this journal in an earlier communication (April, 1962). In the present paper a supplementary system for a more definite identification of marked tablets and capsules is illus-

trated. More than 1,200 products have been catalogued under this system to date. (See *Journal AMA*, 182 (12) (Dec. 22, 1962) Identification Guide for Solid Dosage Forms).

A pictorial guide as the one presented here is, of course, limited to the identification of products having characteristic markings. It may sometimes become difficult to decide which group a particular marking belongs to, but for a person familiar with drugs and firm names, the pictorial guide represents a rapid means of identification.

The guide is of great help in poison centers where no original product is available for comparison. Furthermore, if the person making the identification wants to confirm the identity over the telephone, the description of a product is reduced to merely mentioning the pictorial subgroup, size, and the code number.

No attempts have been made to include colors in this guide. It is the author's experience after handling close to 5,000 products, that color can be a very variable factor to define with words.

**Modified Absorption-Elution Method of Siracusa for ABO and MN Grouping of Bloodstains**—A. Fiori, M. Marigo, and P. Benciolini, *Journal of Forensic Sciences*, 8 (4): 535-67 (October, 1963). Part I of this article discusses the historical background of the three possible procedures for the detection of resulting antigen-antibody reactions:

1. Qualitative determination of the agglutinating power in the previously absorbed antiserum, or quantitative titration test to ascertain if the titre of the absorbed antiserum is decreased (absorption inhibition test).
2. Mixed agglutination between bloodstained fibrils or blood crusts, to which antibodies are absorbed, and A or B erythrocyte suspensions.
3. Elution from bloodstains of previously absorbed antibodies and testing for agglutination with respectively A, B, O, etc., erythrocytes.

The article continues with a description of the experimental studies.

Part II of this article summarizes the research as follows: The absorption-elution method proposed in 1923 by Siracusa for grouping bloodstains has been studied. A modified procedure is given by means of which high sensitive, reproducible

results can be obtained for ABO and MN grouping on bloodstained fabrics and on dried blood crusts.

A critical survey of the various methods currently proposed for grouping bloodstains allows the conclusion that absorption-elution is preferred for microanalysis, provided that optimal performance conditions are respected. Mixed agglutination can be employed as complementary test.

A systematic procedure for a complete microanalysis of bloodstains is suggested. An extensive bibliography of 128 references is included. (WEK)

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**Forensic Neuropathology—X. Common Chemical, Metallic, and Metalloid Poisons—Cyril B. Courville, *Journal of Forensic Sciences*, 8 (4): 481-502 (October, 1963).** Organic solvents and metals are common poisons which affect the nervous system. The degree of toxicity of the solvents is variable. The least toxic are the phenolic and aniline compounds and the most toxic are alcohol, benzene, and carbon disulfide. The heavy metals as a class are presumed to have a potency for diffuse noxious effects on protoplasm. Some investigators believe that they also depress the functions of the pyruvate oxydase system. Of the metals, lead causes poisoning most often. Its action on the human nervous system is multiple. Thallium, manganese, and mercury seem to produce the most characteristic structural alterations. Arsenic apparently does not have a specific action on the brain, but does produce an unusually persistent structural change in the peripheral nerves.

Phosphorus poisoning may be fatal, but no profound changes are produced in the brain. Cyanide is a common industrial poison, but because of the usually short survival period few changes are found in the brain. Pentaborane, a newer toxic substance derived from borax for use as a solid jet propulsive agent, produces congestion and other cerebral changes. Nicotine is a potent poison, but it leaves no characteristic signs. (WEK)

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**Reconstruction of an Arsenic Poisoning—D. Bradwell, *Journal of Forensic Sciences*, 8 (2): 295-302 (April, 1963).** In a recent poisoning case in Kenya little evidence was available except minute concentrations of arsenic in soup and water. By searching the lawn outside the house, 1.88 gms arsenic were found and a feasible reconstruction of the poisoning incident was suggested involving an attempt to mislead the in-

vestigators by substitution of unpoisoned soup for the remains of the poisoned portion. (WEK)

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**The Forensic Pathologist and the Unsuspected Foreign Body—Joe M. Blumberg, and Edward H. Johnston, *Journal of Forensic Sciences*, 8 (2): 231-49 (April, 1963).** Foreign bodies usually gain entrance into the body by being either swallowed or inhaled, by accident or by intention. In a large percentage of the cases, the individual is originally aware of the passage of a foreign body, but in some cases, because of the absence of any immediate symptoms, he may forget about the incident and cannot connect it with difficulty that arises later. Sometimes the physician is at fault because he discards the patient's statement that a foreign body was inhaled or ingested. He may take an x-ray and, in the absence of a shadow, too quickly rules out this possibility. Fortunately most foreign bodies are detected early, and the removal effects a cure. Not a great number of fatalities from foreign bodies are recorded in the medical literature, and these are by the otolaryngologist rather than the general or forensic pathologist. Most of the attention to foreign bodies by forensic pathologists in recent years has been to the so-called "Bolus" death.

Nine autopsy cases of death directly related to a foreign body are presented. These involved: Chewing gum, lima bean, and coil spring in the tracheobronchial tree; wishbone in the esophagus with perforation of the aorta; fish bone in portal vein with abscess and thrombosis; fishing bob in a tear in the rectum with abscess formation; three table knives in the duodenum with perforation into the liver; and pencil lead in brain resulting in a brain abscess.

The relationship of the foreign body as a cause of death and its significance from the point of view of the forensic pathologist are discussed. (WEK)

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**Comparison of Inks by Paper Chromatography—P. S. Raju, R. C. Banerjee, and N. K. Iyengar, *Journal of Forensic Sciences*, 8 (2): 268-85 (April, 1963).** Circular paper chromatography has been employed for the identification of inks. Chromatograms of 111 inks which include 64 fountain pen inks, 28 writing inks, 9 stamp-pad inks (each with acidic and alkaline solvents), 7 ball-point pens, 1 postal sealing ink, 1 thumb impression ink, and 1 copying pencil ink (with 2 different solvents)

have been prepared. Solvent systems suitable for the various classes of inks have been worked out and described. Chromatograms for postal sealing ink and thumb impression ink could not be prepared as none of the solvent systems tried were able to resolve the constituents. The Rf values for the different constituents of inks have been determined. This study covers almost all the well-known inks, both imported and indigenous, available in the Indian market. It is hoped that his record of chromatograms and Rf values will be useful in the examination of inks by the forensic science laboratories. It is concluded that writing inks require an acidic solvent while ball-point pens and stamp pad inks need an alkaline solvent. (WEK)

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**The Identification of Impressions of Nonfriction-Ridge-Bearing Skin**—Duayne J. Dillon, *Journal of Forensic Sciences*, 8 (4): 576-82 (October, 1963). Latent impressions of skin devoid of friction ridges are not utilized to any extent as evidence. The characteristics available for comparison of this type of impression are unique, reasonably permanent and similar to those encountered in other latent impressions. A recent case involving an impression of the inner forearm skin and the type of courtroom display is discussed. (WEK)

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**A Study of Some Factors Affecting the Accuracy of the Breathalyzer**—B. B. Coldwell, and G. L. Grant, *Journal of Forensic Science*, 8 (2): 149-62 (April, 1963).

1. The concentration of potassium dichromate in the ampoule can vary  $\pm 40\%$  without affecting the accuracy of the instrument.
2. A variation of  $\pm 10\%$  in the acid concentration will not affect the result.
3. Traces of alcohol disappear completely from the mouth in 20 minutes under normal circumstances and within 30 minutes if the individual keeps his mouth closed.
4. The temperature of the ampoule was varied from 36°C to 55°C without any effect on the reading.
5. Ampoules must be gauged carefully. Reading 0.04 units higher than the expected values have been obtained on ampoules with low menisci in the gauge test.
6. Acetone containing air gives no reaction on the Breathalyzer within the usual 90 seconds and even after 13 minutes the reading is

less than 0.05%. Acetaldehyde, paraldehyde, n-propanol, and iso-propanol react like ethanol in the Breathalyzer. However, in the amounts these substances might be present in the breath the reading on the machine would be negligible and, in any event, these substances are intoxicants. Methanol, ether, n-butanol, and iso-butanol can be differentiated from ethanol by their rates of reaction.

7. Breathalyzer readings taken on aqueous alcohol solutions of varying concentrations very closely approximated the calculated values. The standard error associated with a reading appeared to increase slightly with the increase in alcohol concentration.
8. Data is presented which indicate that the variability in Breathalyzer readings obtained under police department conditions by trained police operators is within acceptable limits and compares favourably with that found under experimental situations. (WEK)

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**A Survey of Toy Typewriters, 1961**—Simeon Wilson, *Journal of Forensic Sciences*, 8 (2): 163-78, (April, 1963).

1. The toy typewriter can be used for harmful and illegal purposes. When used for such purposes, it poses a series of problems for the document examiner. While related to regular typewriting examinations, toy typewriter problems are unique in certain respects.
2. Typewriting examination methods employed in conventional problems are applicable to toy typewriter investigations, modified by the precautionary measures noted.
3. Typical toy typewriter construction is light, loose, and imprecise. Mechanisms embodied in toy machines are rudimentary in nature, and contribute to the irregularity of the writings produced on such machines.
4. Toy types in current use are made of metal or plastics. The same size and style of type may appear on more than one model produced by the same manufacturer.
5. The document examiner must beware of evaluating certain toy typewriter typescript irregularities as individual characteristics common to an entire category of machines.
6. Toy typescript can be identified as to a group, or category of machines, and within certain limitations, with a make and model.

7. Toy typewriters do develop individualized writing abnormalities which can be associated with specific machines. (WEK)

**Use of Paper Chromatographic Technics on Urine for Evaluating Narcotic Usages by the Nalorphine Pupil Test**—Shih-Chia Chen Lin and E. Leong Way, *Journal of Forensic Sciences*, 8 (2): 209-19 (April, 1963). A paper chromatographic procedure used for identification of morphine and related narcotic substances in urine and for sample, either hydrolyzed or not hydrolyzed, is extracted for the narcotic compounds and/or its biotransformation products at pH 8.5 and pH 10-11 with ethyl acetate, and a concentrate of this solvent extract is spotted on chromatography paper. By using a solvent system of tert-amyl alcohol, di-n-butyl ether and water (10:1:5, V/V) and Whatman No. 3MM paper impregnated with phosphate buffer at pH 7.0, 6.3, 6.0, and 4.4, and effective separation of 20 narcotic compounds was achieved. (WEK)

**Safety Paper and Check Fraud**—Robert L. Edsberg, *Identification News, IAI*, 13 (10): (October, 1963). A description of the problems, objectives, present status and to some extent future developments in check protection. When we consider that approximately 14½ billion checks were written in the United States in 1962, with an expected increase to 22 billion in 1970, we realize the importance of the safety paper of the check and the manufacturer's concern for its effectiveness. The brief review of the various protective features of the various safety papers on the market today should suggest the laboratory tests that should be conducted when investigating questioned documents. (WEK)

**Vitreous Potassium Concentration as an Indicator of the Postmortem Interval**—Lester Adelson, Irving Sunshine, Norman B. Rushforth, and Mark Mankoff, *Journal of Forensic Science*, 8 (4): 503-14 (October, 1963). The concentration of potassium ions in the ocular vitreous was determined in 349 eyes from 209 persons whose time of death was known, and who were brought to the Cuyahoga County (Cleveland, Ohio) Coroner's Office for routine medico-legal investigation.

Following death the concentration of the vitreous potassium increases in a linear fashion with lengthening of the postmortem interval.

However, the rate of increase in potassium concentration is so small that for the study group as a whole the precision of the estimate of the post-mortem interval is  $\pm 10$  hours. The corresponding figure for the subgroup whose variance was least is ( $\pm$ ) 5.75 hours.

Thus the establishment of the time of death using the concentration of the vitreous potassium offers little of practical value than can be utilized to supplement what can be determined using other techniques. (WEK)

**Child Molesters and Men who Expose Themselves—An Anthropological Approach**—Werner Tuteur, *Journal of Forensic Sciences*, 8 (4): 515-25 (October, 1963). Pedophilia and exhibitionism are related paraphilias which may appear in combined form in the same individual. They represent regressive behavior under stress. Exhibitionism is repetitive of human behavior displayed in prehistoric times and for a relatively short time during early childhood. The very passivity of the paraphiliac who is primarily overwhelmed by fear, renders him reasonably harmless, yet cases of violence and homicide among pedophiliacs on their victims are known. Regression denotes illness and dealing with it should be by means other than punishment. (WEK)

**The Disappearance of Alcohol from the Blood of Diabetics**—B. B. Coldwell and G. L. Grant, *Journal of Forensic Sciences*, 8 (2): 220-30 (April, 1963).

1. The breath of diabetics under active treatment does not give a reading on the Breathalyzer.
2. Blood and urine specimens from diabetics under active treatment showed no traces of alcohol by either of two independent methods of analysis.
3. The rate of disappearance of alcohol from the venous blood of diabetics under active treatment appears similar to that from the venous blood of nondiabetics, at blood alcohol concentrations below 0.08%.
4. The blood alcohol-urine alcohol ratio in diabetics under active treatment is similar to this ratio in nondiabetics. (WEK)

**Dying and Death**—Philipp R. Rezek, *Journal of Forensic Sciences*, 8 (2): 200-8 (April, 1963). Modern textbooks discuss cellular death in great

detail and from different angles, but somatic death, with the exception of its diagnosis and postmortem changes, is neglected.

The differentiation between cellular and somatic death is arbitrary and erroneous. There is only one death, but too little attention is paid to the initiating phase of death, to agony. It should also be stated that we approached this problem from two directions only. Many other approaches like those via biochemistry, histochemistry, electron microscopy, tissue cultures, acute poisoning, et cetera, may reveal the same or similar conclusions. (WEK)

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**Research on Huntington's Chorea: Problems of Privilege and Confidentiality**—John R. Whittier, *Journal of Forensic Science*, 8 (4): 568-75 (October, 1963). A brief description of Huntington's Chorea is presented, and the disease, a hereditary degenerative disorder of the neural system with a dominant genetic mechanism, is represented as an unique opportunity for research. The operations of case-finding, creation of a cooperating relatives group, and periodic survey in the conduct of research are described. Certain of these operations may come into conflict with rules relating to privilege or malpractice. They are discussed, and measures to avoid such conflicts are advanced. (WEK)

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**The Practice of Identification in Analytical Toxicology**—Leo R. Goldbaum, Edward H. Johnston, and Joe M. Blumberg, *Journal of Forensic Sciences*, 8 (2): 286-94 (April, 1963). The problem of the proper identification of chemical agents in toxicology resolves itself in the need first, for well-trained, experienced toxicologists, and second, for improved methodology. The Armed Forces are aware of the need for improved toxicology as well as for close cooperation and understanding between the toxicologist and the pathologist. The military services have available specialized laboratories, such as the one at the Armed Forces Institute of Pathology, that are used for consultation by smaller units. The Armed Forces also offer training in these laboratories as well as workshops, demonstrations, and short courses, for both the toxicologist and the pathologist. (WEK)

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**Determination of Hydrocarbons in Fire Remains**—Bruce V. Etting, *Journal of Forensic*

*Sciences*, 8 (2): 261-7 (April, 1963). Hydrocarbons are commonly used as accelerants so that arson investigation often involves analysis for hydrocarbons. The method of isolating virtually pure hydrocarbons described in this paper involves extraction of the char or material under investigation with dichloromethane and evaporating the solvent. The residue is dissolved in hexane and passed through a column of activated alumina. The effluent is evaporated and the residue which is virtually pure hydrocarbon material is weighed. Examples of applications are included. (WEK)

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**Frequency of Certain Characteristics in Handwriting, Pen-Printing of Two Hundred People**—Orville B. Livingston, *Journal of Forensic Sciences*, 8 (2): 250-59 (April, 1963). Some conclusions may be drawn rather safely from the results of the tabulation, especially those confirming previous observations. Some ideas of about ten years ago have been revised. Small letter printing, correctly done, is much less common than capital letter printing and incorrect mixtures of capital and small letter printing, though the form cards used do not tend to encourage the use of small letter or lower case pen-printing. Western foreign style writings appear rather infrequently in the collection.

It is hoped that the resulting percentages for pen-printing and handwriting characteristics may give some assistance to document examiners wanting to place proper values on common and less common characteristics in their efforts to decide correctly the identity of persons doing questioned writings. (WEK)

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**The Identification of the Victims of the Fire at the Stalheim Hotel in June 1959**—E. Waaler, *International Criminal Police Review*, No. 161: 242-54 (October 1962) describes the extensive investigation problem and the methods used in the identification of fire victims. Many bodies were almost completely destroyed. The article describes the systematic search of the ruins, the methods of marking body fragments and identifying materials. Identifications were made first on comparison of teeth with dental records, operations with medical records, and by documents of value and jewelry. The identification of several individuals was made by an elimination process showing the extreme need for thoroughness in this type of disaster. (OH)

**Transmission of Fingerprints—New Suggestion in the Field of Fingerprinting**—Col. Mustafa Ghorbani, *International Criminal Police Review*, No. 161: 255–8 (October 1962) discusses a new method of fingerprint classification used by the Iranian Police which is suitable for transmission of data by telegraph. The author analyses shortcomings of other methods. (OH)

**The Kungsten Murder**—Robert Odin, *International Criminal Police Review*, No. 162: 262–8 (November 1962) writes about the solution of a burglary and murder in Sweden. The criminal committed two related crimes at two different scenes. Identification and connection of crimes involved reconstructing a broken pen knife, identification of fingerprints on wire, investigation of burglary tools abandoned at the scene, comparison of sole prints, and very extensive police investigation throughout several countries. The ultimate results led to a confession. (OH)

**Identification by Superimposed Photographs**—N. K. Sen, *International Criminal Police Review*, No. 162: 284–6 (November 1962) describes the use of photography in superimposing a skull on a passport photograph to bring about the identification. (OH)

**General Assembly, Interpol, Madrid**—*International Criminal Police Review*, No. 163: 291–364 (December 1962). The entire issue is taken up with the Interpol General Assembly meeting of September 1962. Among technical matters are reports on narcotics, motor vehicle thefts, thefts of goods during air shipments and illicit gold traffic. A report on the Indenti-Kit system of visual identification is included. Color photography in criminal investigation and trials was discussed. The use of middle phalange prints for subdividing fingerprint records was reported. (OH)

**The Filing of Palm-Prints—An Experiment Undertaken in Colombia**—Gonzalo Gil Vargas, *International Criminal Police Review*, No. 164: 2–5 (January 1963) describes three methods used for filing palm-prints. (OH)

**Night Photography by Flash-Rocket**—F. Geronimi, L. Aufroix, P. F. Ceccaldi, *International Criminal Police Review*, No. 164: 6–10 (January 1963). The authors discuss the problem of using

flash-rockets for making night photographs and the disadvantages of using military illumination rockets in cities. A specially designed flash-rocket suitable for night color photography was developed. It is useful in crime verification or reconstruction at night, for photographing night time disasters and public demonstrations. (OH)

**Liquor Drop Helps in Crime Detection**—Dewan K. S. Puri, *International Criminal Police Review*, No. 164: 15–19 (January 1963) discusses a case in which an alteration in a document fell in the same area as a drop of liquor. The reactions of the ink in this area permitted the solution of the case. The article is illustrated but, unfortunately with poor reproductions. (OH)

**The Crime at Guincho**—A. Alcarva, *International Criminal Police Review*, No. 165: 47–51 (February 1963) describes the discovery of a body in an advanced state of putrefaction and the ultimate identification of the individual. Fingerprints were reproduced by removing skin and photographing. The article further details the investigation and the proof of murder. (OH)

**A Joint Statement on Narcotic Addiction in the United States**—The American Medical Association and the National Research Council of the National Academy of Sciences, *International Criminal Police Review*, No. 165: 54–6 (February 1963). These organizations support (1) after complete withdrawal follow up treatment of addicts; (2) measures to permit compulsory civil commitment of drug addicts for treatment; (3) advanced measures toward rehabilitation under continuing civil commitment; (4) research designed to give new knowledge of prevention of addiction and treatment; and (5) dissemination of factual information on narcotic addiction. (OH)

**The Kidnapping of Young Eric Peugeot—A Rare Crime in France**—Guy Denis, *International Criminal Police Review*, No. 166: 66–75 (March 1963) and No. 167: 109–16 (April 1963). A full story of the crime and the successful investigation. (OH)

**The Infra-Red Microscope as an Aid to Police Investigations**—Heinrich Becker, *International Criminal Police Review*, No. 166: 84–8 (March 1963) describes a unit used in Germany and the

applications to analysis of ink, examination of charred documents, sequence of handwriting, secret writing and the examination of paintings. (OH)

An Interesting Police Exhibition in Peru—*International Criminal Police Review*, No. 167: 116-22 (April 1963). An illustrated article describing a technical police exhibit. (OH)

A Typical Counterfeiting Organization—Interpol General Secretariat, *International Criminal Police Review*, No. 167: 123-4 (April 1963) describes an international organization of counterfeiters and their mode of operation. (OH)

A Test Respecting the Lay Identification of Canadian Paper Currency—A. M. Headrick, D. M. Duke and R. A. Huber, *International Criminal Police Review*, No. 168: 130-38 (May 1963). A report on an interesting experiment involving three groups of individuals and their ability to detect counterfeit bank notes. Group 1 described as non-professionals included people who did not normally deal with currency in large volume, group 2 semi-professionals included those who handled a fairly large quantity of currency daily and group 3 professionals consisting of note examiners from the Bank of Canada. Statistical report shows the result of recognizing forged notes. Accuracy ran about 75 per cent. The various factors used by subjects in the experiment to recognize forged bank notes is reported. Group 1 relied more on "feel" rather than appearance, while groups 2 and 3 considered visual appearance of the note more important. The authors believe test results show a higher degree of accuracy than would be encountered under daily handling of money. (OH)

Edgeoscopy—S. K. Chatterjee, *International Criminal Police Review*, No. 168: 139-45 (May 1963) discusses a study of the edges of papillary ridges as a factor in fingerprint identification. He defines eight characteristics used in this type of identification. (OH)

Crime Turns to Electronics—Sgt. Det. Roy Sople, *International Criminal Police Review*, No. 169: 162-4 (June-July 1963) describes an electronic device placed on an automobile bumper which was believed capable of causing the car to stall in a secluded spot and thus to facilitate

robbery. The device was discovered before commission of any crime. (OH)

The Expert Examination of Handwriting in France in the 17th Century—Jean Gayet, *International Criminal Police Review*, No. 169: 165-76 (June-July 1963) reviews two 17th century publications describing techniques used for examining handwriting. Discussed in the article are these earlier authors views on the comparison of handwriting, alterations of documents, documents signed in blank and the date of documents. Document examiners will find methods reported in many instances modern. (OH)

An Interesting Press-Police Meeting on Crime Reporting—Marcel Sicot, *International Criminal Police Review*, No. 169: 184-5 (June-July 1963). An International Press Institute meeting of nearly 1400 members invited the author as Secretary General of Interpol to take part in a forum on Crime Reporting in March 1963. Reported are remarks of several individuals on press-police relations. (OH)

The Atomat—A New Weapon for Police Use—Capt. Ernest Spoerri, *International Criminal Police Review*, No. 170: 210-11 (August-September 1963). The author describes a new harmless tear gas device which has been tested and found useful for police. (OH)

The Telecommunications Systems of the Argentine Federal Police—*International Criminal Police Review*, No. 170: 194-201 (August-September 1963). An illustrated article describing radio and other communication equipment and networks of the Argentine Federal Police. (OH)

4th International Conference on Alcohol and Traffic Safety—Conference will be held under the sponsorship of the International Committee of Alcohol and Traffic Safety at the University of Indiana, Bloomington, Indiana, December 5 to 9, 1965. Divisions of interest will include: Alcohol and road accidents; Pharmacological, psychological and psychological aspects of alcohol intoxication; The drinking driver; Chemical tests for intoxication; and Comparative aspects. For enrollment and information write Miss Bonnie Britt, Department of Police Administration, University of Indiana, Bloomington, Indiana. (OH)