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Police Science Technical Abstracts and Notes

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POLICE SCIENCE TECHNICAL ABSTRACTS AND NOTES

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A Problem in the Aging of Human Skeletal Remains—Wilton Marion Krogman, *Journal of Forensic Sciences*, 7 (3): 255-64 (July, 1962). Self-criticism of a scientific error by one of the country's outstanding anthropologists. The author in assessing the age of an almost complete white male adult skeleton was wrong by more than a decade. Being the scientist that he is, he proceeds to point out his errors supplemented by appropriate illustrations. An unusual combination of traits—sutures, pubic symphysis, clavicle, arthritis—which combine variability and pathology is an erratic and (as interpreted by the author) misleading blend. (WEK)

Significance of Membership in the American Academy of Forensic Sciences—S. R. Gerber, *Journal of Forensic Sciences*, 7 (3): 265-73 (July, 1962). An analysis of the American Academy of Forensic Sciences with reference to the following questions as made by President Gerber in his presidential address at the 1962 Chicago meeting.

1. What is the American Academy of Forensic Sciences?

The Academy is a voluntary organization of men and women interested in and working for continued improvement of the quality of their own performances and also that of others in the fields of the individual disciplines represented in the various sections of the Academy.

2. What does the American Academy of Forensic Sciences do?

Through the medium of annual meetings, the *Journal of Forensic Sciences*, and person-to-person relationships of members, opportunities are

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afforded for interdisciplinary study of mutual problems. Thus, members not only augment their knowledge in their own specialty, but they also become aware of the potentialities and limitations of other disciplines. It is by virtue of this emphasis on the interdisciplinary approach to mutual problems that this organization warrants the title of Academy.

3. What should the American Academy of Forensic Sciences do?

The objectives and purposes are stated to be, "to encourage the study, improve the practice, elevate the standards, and advance the cause of forensic sciences; to promote the standardization of scientific techniques, tests and criteria; to plan, organize, and administer meetings, reports and other projects for the stimulation and advancement of these and related purposes."

4. How and whom should the American Academy of Forensic Sciences serve?

Each year it has been implied that the American Academy of Forensic Sciences should serve humanity and the cause of justice through individual and collective efforts of the members. Membership in the American Academy of Forensic Sciences should be considered not only a privilege affording opportunity for self-improvement but also an obligation to advance the cause of all forensic science.

With a panoramic view of the Advancement of Forensic Science, this Academy ought to actively influence the recruitment, education, and training of future practitioners in all phases of forensic sciences. (WEK)

Sudden Natural Death among Automobile Drivers—Bonita J. Peterson and Charles S. Petty, *Journal of Forensic Sciences*, 7 (3): 274-85 (July 1962). Heart disease was by far the most frequent cause of death among 81 drivers who died suddenly from natural causes at the wheel of a motor vehicle. In a study of such driver fatalities occurring prin-

cipally in city and suburban areas of Baltimore, Maryland, during a 4-year period, the resulting accidents were minor, producing relatively little damage to property and no serious injury to pedestrians, passengers, or other drivers. More than half of the 81 drivers were apparently able to stop the automobile before an accident occurred. The present study suggests that these individuals are not as great a menace as might be expected and that among them, a high blood alcohol level is not likely to be a contributory factor.

Of all motor vehicle driver fatalities where the driver was apparently at fault and where an accident took place, 19% (36 of 192 cases) were caused by disease processes, not trauma. (WEK)

Identification of the Work from an IBM Selectric Typewriter—A Preliminary Consideration of the Problem—Ordway Hilton, *Journal of Forensic Sciences*, 7 (3): 286-302 (July 1962). On July 31, 1961, IBM announced its new Selectric typewriter, a revolutionary concept in typewriter design. Its chief feature is a stationary platen with all typewriting accomplished by a type head which moves from left to right across the paper. The machine has no type bars. The type faces are mounted on a ball-like type head. The type head itself is easily removable, and different type heads can be used on a single machine.

This study represents investigation of the basic principles of operation of the machine, and a preliminary analysis of the identification problem. New types of defects typical of these machines may develop, but time and experience only will tell. However, in any event, we must constantly keep in mind that there is an interrelationship between defects brought about by the mechanical operations of tilt and rotation which produce a high correlation between certain defects in certain letters. By the same token, malalignment of head and platen produces a correlated result in the uneven impressions of all letters. The ease with which type heads are changed and replaced, if too defective, further limits our work. The Selectric typewriter represents a new challenge to the document examiner which must be overcome by continuous research and a cautious, scientific approach to each identification problem. (WEK)

Forensic Neuropathology—IV. Significance of Traumatic Extracranial and Cranial Lesions—Cyril B. Courville, *Journal of Forensic Sciences*, 7

(3): 303-22 (July 1962). Injuries to the exterior of the head in the forms of abrasions, contusions, and lacerations are not important in themselves as far as mortality is concerned. However, the type, location, and extension of fractures of the skull in such injuries may be helpful in evaluating the nature of the mechanism which produced the more important damage to the brain. It is therefore important for the forensic pathologist to pay critical attention to these accessory injuries, noting carefully their location and type and recording them faithfully as a part of the medical record. It is a source of great satisfaction when a careful evaluation of all of these lesions often proves to be of great help in reaching a correct conclusion as to the mechanism of the total injury. (WEK)

Forensic Neuropathology—V. Complications of Cranial Fractures—Cyril B. Courville, *Journal of Forensic Sciences*, 7 (3): 323-45 (July 1962). This study constitutes a brief survey of the many and varied types of complications of fractures of the skull, acute and chronic, which occasionally demand careful medicolegal evaluation. As a rule, these complications do not require critical study, since by their very nature, the mechanism of their formation is quite clear. The importance of understanding these complications is that first of all, they should not be mistaken for nontraumatic lesions, which is rarely the case. Secondly, they should not be confused with other traumatic lesions and thereby cause misunderstanding of their true causative mechanism (i.e. a laceration of the superficial tissues of the brain may be confused with a contrecoup contusion). Residuals of such complications are not likely to be found in great numbers except in cities where large numbers of traumatic lesions are exposed for evaluation in the course of time. Nevertheless, in any community the medical examiner may be suddenly confronted with such a lesion, even though they be rare. For this reason such a survey calling attention to all these complications has seemed to be worthwhile. (WEK)

Wounding Effect of a Spherical Shot Falling Under Gravity—M. Jauhari and J. K. Sinha, *Journal of Forensic Sciences*, 7 (3): 346-50 (July 1962). Whether or not a spherical shot falling from sufficient height can cause a disabling wound has been investigated. It has been shown that only the 10 bore single ball can cause a disabling wound

provided 40 ft. lbs. is taken as the minimum striking energy to do so. (WEK)

Preparation for Trial from a Document Examiner's Viewpoint—John J. Harris *Journal of Forensic Sciences*, 7 (3): 351-6 (July 1962). The author stresses the importance of conference with the trial attorney so that there is a mutual understanding of the points to be developed and the basic principles which supports the conclusion of the expert. Physical preparation should include preparation of qualification questions which emphasize the special experience and knowledge related to the particular problem in issue; preparation of photographic exhibits; possible use of media other than photographs for courtroom demonstration such as microscopes, ultraviolet lights, special measuring devices; preparation of outline of direct testimony which dependent upon the attorney may include writing it out word for word; a plan for introducing photographs in proper sequence; step by step reasons for opinion; and a strong closing statement. (WEK)

Death from Clinitest Tablets—J. F. Burton and E. S. Zawadzke, *Journal of Forensic Sciences*, 7 (3): 357-62 (July 1962). The choice of agents for ingestion to commit suicide have become more varied and numerous due to modern chemical synthesis. As a result of this, the appearance of the post mortem changes are likely to be altered also. Such a case in point has been presented illustrating the bizarre lesions produced by suicidal ingestion of clinitest tablets. In such instances, a sample of the suicidal agent in question may be required for examination before the autopsy findings can be properly evaluated. The active ingredients are copper sulphate, caustic soda, sodium bicarbonate, and citric acid. On contact with the urine (or moisture) heat is produced, and a gas is liberated from a mixture which boils vigorously. (WEK)

Medicolegal Disinterments—Herman D. Jones, *Journal of Forensic Sciences*, 7 (3): 363-70 (July 1962). The absolute necessity for the forensic pathologist to be certain of and to follow in detail the laws applicable to the disinterment of a body has been stressed. The procurement of legal written authorization for disinterments, the use of photographs for identification purposes and the on-the-scene preparation of a detailed protocol together with careful preservation of evidence are discussed.

Two cases are presented to illustrate these points. (WEK)

Procedure and the Expert Witness—Shelley Braverman, *Journal of Forensic Sciences*, 7 (3): 371-4 (July 1962). The value of expert testimony is, to a large degree, controlled by confidence in, and respect for, the entire field. Unwarranted perjuries by counsel are a disservice to all—and far deeper and more destructive than ridicule by the popular press. Consideration might be given to installing a special oath for the expert witness—clarifying his position and purpose.

Consideration might be given to requiring summations to be recorded and so become a part of the trial records in those states which do not require this at present, protecting thereby defendant's rights to a fair and impartial trial on appeal. (WEK).

Continuous In-Vivo Estimation of Blood Alcohol—Guy Nadeau, Benoit Fortin, and Pierre Dugal, *Clinical Chemistry*, 8 (1): 72-79 (February 1962). The AutoAnalyzer manufactured by Technicon Instruments Corporation, Chauncey, New York, was applied to constant in-vivo experiments on dogs for determination of blood alcohol. Chromic acid was used in the instrument for the reaction to estimate alcohol levels. The reaction with chromic acid is not specific for ethanol, and in the conditions of the experiments with blood it was found that glucose is responsible for the interference. Although interferences by glucose was observed in the chemical methodology used, preliminary data showed that the rise of blood alcohol is slower following I-V administration of alcohol-water mixtures than with alcohol-saline solutions. With the experimental animal under pentobarbital anesthesia the alcohol equilibrium is reached more rapidly, and the elimination period is significantly prolonged. (JDC)

Gas Chromatographic Separations of Drugs and Drug Metabolites—W. J. A. Vanden Heuvel, E. O. A. Haahti, and E. C. Horning, *Clinical Chemistry*, 8 (4): 351-359 (August 1962). Studied were barbiturates, quinolines used as antimalarials, and phenothiazines and diphenylamines. These drugs and their metabolites can be separated by gas chromatography for purposes of identification or estimation. An instrument with a radium-foil Lovelock argon ionization detection system was

used with columns of thin films of thermostable liquid phase coated on inert or activated supports. All columns were six feet by four millimeter I.D., glass U tubes containing a one per cent liquid phase packing on 100-140 mesh Gas-ChromP. Applied detector cell voltages were 650-750 v. This new method is of great potential value in work with many drugs and drug metabolites. Resulting data and a discussion of relevant gas chromatographic methodology is presented. (JDC)

The Ultra-Micro Determination of Salicylates in Biologic Fluids—Albert Hanok, *Clinical Chemistry*, 8 (4): 400-404 (August 1962). Fifty microliter specimens of serum, spinal fluid and urine were added to four milliliters of color reagent described by Trinder (*Biochem. Journal*, 57, 301, 1954). The resulting purple color developed was measured on a spectrophotometer at 540 millimicrons and compared with standards. The usual large urine blank was reduced to values approximately the same as serum and spinal fluid by using the fifty microliter specimen which results in large dilution. Recovery of salicylate from urine tended to be lower than expected; however, the areas for all recoveries were within three standard deviations of the mean blank values for the respective biologic materials used. (JDC)

The Significance of Fingernail Abrasions of the Skin—H. A. Shapiro, J. Gluckman, and I. Gordon, *Journal of Forensic Medicine*, 9 (1): 17-19 (Jan.-March 1962). Tests made on the results of fingernail impressions on skin show that the presumed position of the hand may be in error. The crescent may face the opposite direction from that expected. (JDN)

A Study of Human Hairs in Forensic Work—A Review—S. K. Niyogi, *Journal of Forensic Medicine*, 9 (1): 27-41 (Jan.-March 1962). A review with extensive bibliography. (JDN)

The Status of Interrogation Drugs in the United States—Gilbert Geis, *Journal of Forensic Medicine*, 8 (1): 29-33 (Jan.-March 1961). A review of the legal position in the United States. (JDN)

Individuality of Dry Blood, a Density Gradient Study—F. R. Sylvia and P. L. Kirk, *Journal of Forensic Medicine*, 8 (1): 34-41 (Jan.-March 1961). Several specimens of blood were compared

using density gradient tubes prepared with seven layers of varying density. Zinc chloride in water made to density 1.507 and 1.457 for the heavier and lighter ends, respectively. Ratio mixtures were made of these solutions. 2 mg specimens of blood were added to tubes after they had equilibrated. Certain variables, such as composition of sample, manner of application, substrate, and fasting influenced the results and limit the value of the test. (JDN)

Purification of Plant Lectins by Continuous Electrophoresis and Their Application to Grouping of Dry Blood Stains—C. I. Leister and P. L. Kirk, *Journal of Forensic Medicine*, 8 (1): 42-6 (Jan.-March 1961). Seeds of *Ulex Europaeus* were extracted and the anti-O and anti-A₂ separated by electrophoresis. The fractions collected could be freeze-dried or dialyzed in cellophane bags. Tests show that plant lectins can be used in adsorption grouping of dried stains. Standardization of procedure and controls are vital. (JDN)

Possible Application of Plant Lectins to Genotype Determination—C. I. Leister, Jr., F. R. Sylvia, and P. L. Kirk, *Journal of Forensic Medicine*, 8 (2): 85-91 (April-June 1962). A procedure used on liquid specimens was applied to dried specimens with equal success. A and A₂ factors were distinguishable. (JDN)

Faecal Matter in Stains, Their Identification—J. C. Giertsen, *Journal of Forensic Medicine*, 8 (3): 99-110 (July-September 1961). Feces are compared on the basis of odor, color, fragments of foodstuffs, bacteria, and pathological constituents. (JDN)

Specificity in Blood Grouping with Plant Lectins and the Application of N-Lectin to Dry Blood Stains—F. R. Sylvia and P. L. Kirk, *Journal of Forensic Medicine*, 8 (4): 172-81 (Oct.-Dec. 1961). Dried stains were successfully grouped by the detection of N using the adsorption method and plant lectin N. (JDN)

Fatigue of Metals in Relation to Accidents—W. R. Berry, *Journal, The Forensic Science Society*, 1 (1): 10-11 (Sept. 1960). Discusses the fracture of metals as the result of corrosion or abrasion or cold working starting focal points of fatigue failure. (JDN)

Investigation of Fatal Road Accidents—*Journal, The Forensic Science Society*, 1 (1): 12-28 (Sept. 1960). Articles on Traffic Accident Investigation as follows: Police Action at the Scene of a Traffic Accident; Photographic Assistance at Road Accidents; The Interpretation of Injuries in Road Accidents; Examination for Sobriety; The Value of Blood and Urine Alcohol Determinations in Road Accidents; The Examination of Vehicles for Mechanical Faults. (JDN)

Science in Criminal Justice—O. Schroeder, Jr., *The J. A. G. Journal*, 16 (5): 71-76 (June 1962). A brief discussion of the roles played by scientific evidence in its acquisition, preservation, and evaluation. Emphasis is directed toward military courts. (JDN)

Microchemical Identification of Modern Analgesic Drugs (Pt. II)—E. G. C. Clarke, *Bulletin on Narcotics*, 13 (4): 17-20 (Oct.-Dec. 1961). Drugs are separated by paper chromatography and then micro drops of the eluted solution identified by precipitates. 18 substances tested, using 27 reagents. Precipitate is described. Color tests with Marquis, ammonium vanadate, ammonium molybdate, selenious acid, sodium tungstate, and Vitalis are given. (JDN)

Tranquillizing and Related Drugs: Properties for Their Identification (Pt II)—P. Rajeswaran and P. L. Kirk, *Bulletin on Narcotics*, 13 (4): 21-32 (Oct.-Dec. 1962). Microscopic crystalline tests are reported for 48 compounds in the tranquilizer class. Sublimation, fusion, and recrystallization from alcohol or ammoniacal solutions produced the crystals shown in the accompanying photomicrographs. (JDN)

Nalorphine Testing for Illegal Narcotics Use in California: Methods and Limitations—J. S. Terry and T. C. Teiera, *The Journal of New Drugs*, 2 (4): 206-10 (July-August, 1962). Tests on convicted narcotic users on parole or probation number 6,000 per month in the California program. A single injection of 3 mg. of nalorphine is given to subject, and the change in before and after size of the pupil is measured by a pupillometer after a wait of 20-30 minutes. If the pupil is larger by 0.25 mm, the test is positive for recent narcotic use. This test is only an aid and should be followed by a chemical test of the subject's urine. The program

necessary for effective use must include surprise tests as well as routine tests. Devices used by parolees to circumvent test are discussed. (JDN)

Incendiary Devices and Methods—J. Q. Adams, *The Fire and Arson Investigator*, 13 (1): 39-51 (July-Sept. 1962). A discussion of typical methods of ignition with particular mention of plastic bottles for accelerants and plastic bags for gun powder igniters. (JDN)

New Instrument: Infrared Microscope—H. Becker, *Kriminalistik*, 16 (7): 295-298 (July 1962). An image converter-microscope for infrared viewing is described. The apparatus, built by Leitz, consists of a compound microscope, the light-path of which is directed into an electronic image converter. Illumination is provided by two 100 W lamps and spectral region is selected by means of six filters graduated from 680 to 1000 millimicrons. The visible image is viewed on a vertically placed screen which can also be photographed directly by a built-in 35 mm. camera, thus eliminating the need for a separate infrared exposure on specially sensitized film. Magnification ranges from 2× to 110×, achieved by interchangeable objective lenses. The regular ocular provides for viewing in white light. There is also a provision for horizontal viewing of large areas such as paintings, body parts, etc. by another objective lens.

The article is illustrated by several examples of the kinds of evidence examinations for which this instrument is useful: restoration of overwriting, alterations, stroke sequence determinations, powder staining on fabric, animal hairs, etc. While the resolution of the viewing screen is not specified, the reproduced photographs are of very good quality. This new device will obviously shorten the time now required for IR-examinations and photography. By modifying the light sources, it should also be readily adaptable for viewing and direct photography of IR luminescence phenomena. (JB)

Fusion of Shot Pellets—H. Hadersdorfer, *Archiv fuer Kriminologie*, 129 (3-4): 68-70 (March-April 1962). A fatal hunting accident prompted an investigation into possibly unknown ballistic effects of shotgun pellets. The victim, a boy, was found to have eight 3-millimeter pellets in his chest cavity. All had entered through a single wound. As

the distance from the weapon had been some 100 feet, it was considered practically impossible for these pellets to have travelled normally. Studies of shot patterns from the ammunition in question showed several instances of pellets being clumped together on impact. This ammunition was relatively old, and it was concluded that dried wads, which permitted gas to pass down the bore over-heating the pellets to the melting point, were to blame for the unexpected effect. (JB)

An Unusually Talented Penman—A. Legruen, *Kriminalistik*, 16 (5): 218-219 (May 1962). Among several documents bearing on a litigation were notarized and certified copies of three certificates which had been used as supporting documents for a job application. Curiously, the copies were hand-drawn facsimiles of the originals including the printed text and signatures. One of these copies, reproduced with the article, contains seven different signatures, all of which represent comparatively successful imitations of the genuine. The imitator turned out to be a baker with an eighth grade education who had received only mediocre marks in school. (JB)

Gravimetric Device for Gas Chromatography. Application to Pyrolysis Studies—R. S. Porter and A. S. Hoffman, and J. F. Johnson, *Analytical Chemistry*, 34 (9): 1179-80 (August, 1962). A pyrolysis block is described. It is of such design that samples can be weighed accurately prior to pyrolysis. (JDN)

Gas Chromatography: A New Tool in Arson Investigation—D. M. Rosie, *Police*, 6 (4): 48-51 (March-April, 1962). A brief survey of the application of gas chromatography to the detection of volatile substances in arson evidence. (JDN)

Gas Chromatographic Determination of Ethyl Alcohol in Blood for Medicological Purposes—K. D. Parker, C. R. Fontan, J. L. Yee, and P. L. Kirk, *Analytical Chemistry*, 34 (10): 1234-6 (Sept., 1962). Gas chromatography of specimens of blood for alcohol is discussed. 56 volatile substances are listed according to retention time on a castor wax—Chromasorb W column.

The quantitation of blood for alcohol requires seven minutes, using ethyl acetate as an internal standard. Accuracy of about 4% is reported. (JDN)

Specific Enzymatic Determination of Alcohol in Blood by an Automatic Spectrophotometric Reaction Rate Method—H. V. Malmstadt and T. P. Hadjiouannou, *Analytical Chemistry*, 34 (4): 455-8 (April, 1962). Under proper conditions, the rate of formation of reduced diphosphopyridine nucleotide (DPN) is proportional to the initial alcohol concentration. By measuring the rate of absorbance change (0.06 unit) at a preselected interval, the alcohol concentration in blood can be determined within 3% over a range of 0.015 to 0.3%. Analysis times are from a few seconds to minutes. The time for a pre-set absorbance change is measured and the value related to a standard alcohol curve. A Sargent Spectro unit is used to measure absorbance. (JDN)

Thin-Layer Chromatography on Microslides—Roberto Wasicky, *Analytical Chemistry*, 34 (10): 1346-7 (Sept. 1962). A device is described whereby thin-layer chromatography plates can be prepared on 75 × 25 mm microscope slides. Several uses are described. (JDN)

Separation and Identification of Some Sympathomimetic Amines by Gas Chromatography—K. D. Parker, C. R. Fontan, and P. L. Kirk, *Analytical Chemistry*, 34 (10): 1344-7 (Sept., 1962). Sympathomimetic amines were separated on a column of 5% Carbowax 20M on 5% potassium hydroxide-coated firebrick. Phenolic and catecholic amines were not separated. (JDN)

Chemical Qualitative and Quantitative Analysis of Some Epoxy Coating Materials—M. H. Swann and M. L. Adams, *Analytical Chemistry*, 34 (10): 1319-21 (Sept., 1962). Fuming nitric acid is placed on specimen. After 1-2 minutes, the liquid is transferred to a test tube and 5 ml. of acetone is added. This is followed by the addition of 0.5 N alcoholic potassium hydroxide until sample is alkaline. A red to violet color indicates epoxy resin of the bisphenol-epichlorohydrin class. (JDN)

Fourth International Conference on Currency Counterfeiting—*International Criminal Police Review*, No. 154: 1-40 (January 1962). The entire issue is devoted to a report on the International Conference on Currency Counterfeiting. Among other subjects discussed were technical safeguards against counterfeiting and forgery and law enforcement and investigation. (OH)

The Use of Color Photography in the Law Enforcement Field—Harris B. Tuttle, Sr., and Edwin C. Conrad, *International Criminal Police Review*, No. 155: 55–64 (February 1962) and No. 156: 84–90 (March 1962). The authors have prepared an extensive reply to Professor Ceccaldi's paper on color photography in which they discuss their views on the relative objectivity of a color photograph; the essential requirements for correctness, durability of colors, and reproducibility; the psychological aspects of the use of color photographs; their reliability and suitability. In addition, there is a discussion of optics and physiology and the training of personnel. The second section of the paper presents the views of American courts and police forces on color photography. (OH)

Newspaper Photographs and Robot Cameras Help the Police—Pedro M. Velez, Jr., *International Criminal Police Review*, No. 155: 65–68 (February 1962). The author discusses a case in which study of a series of newspaper photographs of spectators witnessing the return of bodies of persons killed in an air crash revealed the identity and modus operandi of a gang of pickpockets. A second case describes a robot camera mounted on an automobile, and illustrates how it was effective in revealing the passing of narcotics. (OH)

Detection of Death Due to Snake Bites—Dr. N. K. Iyengar, *International Criminal Police Review*, No. 156: 96–97 (March 1962). The author reports that about one hundred people die daily from snake bites in India. He presents a brief summary of the techniques used to reveal the presence of venoms in the blood of victims. (OH)

Test Papers in Criminalistics—M. Frei-Sulzër, *Kriminalistik*, 16 (3): 100–102 (March 1962). A variety of test papers are available which could be applied to criminalistic problems. The various types surveyed in this article are considerably more sophisticated than old-fashioned litmus paper and may have been overlooked as a valuable aid to rapid testing or elimination. They include those for determining pH value, blood, seminal fluid, nitrates and nitrites, chlorides, etc. (JB)

Identification of Paints, Lacquers, and Varnishes—F. Fournier, S. Poughion, and P. F. Ceccaldi, *Revue Internationale de Criminologie et de*

Police Technique, 16 (1): 66–69 (January-March 1962). A survey of paint analysis methods, including a discussion of paint composition and physical and chemical methods of analysis. The article is illustrated by six color photographs. (JB)

Determining Type of Explosive from Smoke Deposits—M. Koll, F. Wimmer, and K. Fischer, *Archiv fuer Kriminologie*, 130 (1–2): 1–8 (July-August 1962). The problem of determining the type of explosive from very small amounts present in smoke deposits has been approached by a chromatography technique with satisfactory results. Thin coating chromatography (aluminum oxide G) gave good separations of samples from detonated TNT, PETN, and Hexogen in gamma amounts. The solvent was benzene (boiling range 100–140° C) and acetone, 81:19, and the developer n-2 methyl alcohol KOH and Lunge's reagent. The deposits were collected by acetone-soaked swabs. (JB)

Damage by Lightning—H. Schneider, A. Schoentag, and G. Kremmling, *Archiv fuer Kriminologie*, 130 (1–2): 34–52 (July-August 1962). An interesting and well-illustrated survey of the effects of lightning based on actual case studies. One case provided good clues to the energy involved in a fatal lightning accident. The diameter of the "bolt" (1.5 cm) could be measured on a scarf, and the temperature could be deduced from molten portions of a gold plated brass chain: 1,000° C plus. The explosive effect of instantaneously vaporized moisture is illustrated by the bursting of reinforced concrete which served as a ground in another case. (JB)

Breaking and Entering—J. Gillespie, D. Cowan, and Roy Saplet, *R.C.M.P. Gazette*, 24 (7 & 8): 3–9 (July-Aug., 1962). A comprehensive survey of current burglary modus operandi with comments on prevention. (JDN)

Crime Turns to Electronics—Roy Sople, *R.C.M.P. Gazette*, 24 (7 & 8): 18 (July-Aug., 1962). A device was discovered after an abortive attempt to fix it to a car which would later transport money. This device was to be actuated by radio or light to short the ignition and stop the car at some opportune location. (JDN)