Journal of Criminal Law and Criminology

Volume 37 | Issue 6 Article 15

1947

Police Science Technical Abstracts and Notes

POLICE SCIENCE TECHNICAL ABSTRACTS AND NOTES

Joseph D. Nicol*

Identification of Hit-and-Run Auto by Paint Flakes. An unique method was used by the Preston Forensic Science Laboratory, England, in the identification of a hit-and-run auto. Five fragments of paint were found at the scene of the accident which corresponded in color to the paint on the suspect car. The following method was used in addition to spectrographic analysis to obtain a positive identification. Fine lines were observed on the fender of the car where the paint had come off. These were similar in size to lines observed on the back side of the paint flakes. These lines were made by a scratch brush prior to painting and their distribution was random and accidental. By use of oblique light and photography a reversal was made of the markings. The damaged area was examined for matching points and a region similar to that on the paint flakes was found. Due to the nature of the origin of the lines it was deemed improbable that two cars would have identical scratches. This study was reported in *The Police Journal* (England), (*19*:299-304; 1946), by A. L. Allen.

An Incendiary Device. Certain remnants of a war are peculiarly adapted to use with criminal intent. One of these war devices is the "Harvard Candle" described in the *Industrial and Engineering Chemistry* (*38*:767-773; 1946). It consists of a small celluloid cylinder filled with Palmene or Napalm gel and was intended to be used as a starter of comfort fires for downed fliers. No initiating device is described, and it is assumed that a match would be sufficient.

Mutilation of Cadaver. Contrary to the belief that a pet will guard the body of a deceased person even to the point of starvation, a case is reported in the *Bulletin of Bureau of Criminal Investigation of the New York State Police* (*11*: Nos. 9-12; 1946) in which a collie pup so mutilated an aged woman that it required considerable careful investigation to ascertain the cause of death. The dog was caused to vomit the woman's ear swallowed in the course of the mutilation. The volume of blood covering the deceased indicated that mutilation occurred prior to death.

Glass Fractures. Investigators interested in a general review of the subject of glass fractures will find many interesting points clearly illustrated by Sergeant Carl Ledoux in the *Illinois Policeman and Police Journal* (*12*:27, 29, 36-39; Jan.-Feb., 1946). The remarks made concerning bullet holes in glass as to the direction and sequence of the shots is particularly noteworthy. Although by no means conclusive, the article contains information concerning the identification of glass fragments divided according to physical "fits" and chemical similarity.

* Firearms Identification Technician, Chicago Police Scientific Crime Detection Laboratory.

Powder Patterns. *The Bureau of Criminal Investigation of New York State Police* (*11*:8; Sept.-Oct.-Nov.-Dec., 1946) gives a modification by Dr. J. F. Walker of his procedure for dealing with powder patterns on fabrics. In place of "C" acid, 2-naphthylamine-4, 8-disulphonic acid, he uses "H" acid, 1-amino-8-naphthol-3, 6-disulphonic acid. Instead of soaking desensitized photographic paper in the acid, a sheet of imbibition paper is moistened with 5% "H" acid by swabbing. The rest of the procedure is the same, using a towel moistened with 20% acetic acid to provide the acid media for the diazo reaction and pressing the pack with a warm iron.

Stability of Alcohol in Urine and Blood Samples. R. L. Andrew and L. G. Neubauer report in *The Analyst* (*72*:21; 1947), that the alcohol content of blood samples decreases on standing even though refrigerated. In 24 hours a blood sample changed from 0.09 per cent alcohol to 0.06 per cent alcohol while refrigerated. However, refrigerated urine samples were constant for as long as one or two months. These authors regard the urine determinations as more reliable than alcohol determinations in blood samples.

Concentrated-Arc Source in Photography. A further article by W. D. Buckingham and C. R. Deibert on the subject reported previously in the November-December (*37*:346; 1946) issue of this Journal is to be found in the *Journal of the Photographic Society of America, 12*:610-21, 692 (Nov., 1946). It is a treatment intermediate between the photographic use and the technology of design of the concentrated-arc lamp and is more extensive than the elementary sources related in the November-December issue.
