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Police Science Technical Abstracts and Notes

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POLICE SCIENCE TECHNICAL ABSTRACTS AND NOTES

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Alcohol and the Police—W. E. Kirwan, *Bulletin*, Bureau of Criminal Investigation, New York State Police, 24(1): 6-7 (1959). The analysis of alcohol in blood of operators involved in one, two, and three car fatal accidents reveals some rather startling information. Sixty-one dead operators of one-car fatal accidents yielded 61 blood specimens. Of these, 41% contained over 0.15% alcohol, and 39% were between 0.05% and 0.10% alcohol. Of the 31 live operators, 26% of 19 specimens received showed more than 0.15% alcohol. (JDN)

Unusual Ammunition—W. E. Kirwan, *Bulletin*, Bureau of Criminal Investigation, New York State Police, 24(1): 11-12 (1959). A 12 ga slug-wad combination, manufactured by Ferina Rheinisch-Westfausche Springstoff A. G. Nurnberg, is described. The wad group is held to the base of the rifled slug by a round head wood screw. (JDN)

Tokyo Motorcycle Cops Curb Speedsters in Photo Finish—Anon., *Spring 3100*, 29(11): 47 (December 1958). A motor driven camera, f-3.5 wide angle lens, is mounted on the handlebars of Tokyo Police motorcycles. Flash is fitted for night work. This device enables the Tokyo Police to record the vehicle and license number as well as the date, time, and speed of the violator. (JDN)

New Smith & Wesson Firearms—W. E. Kirwan and A. B. Hart, *Bulletin*, Bureau of Criminal Investigation, New York State Police, 24(1): 2-5 (1959). The rifling specifications of the .22 cal. Model 41 pistol is reported as follows: 6 lands and grooves, right twist (one turn in 15"), land width 0.0413", groove width 0.071". The serial number is

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located on the left side of the frame. A ten shot magazine is provided. A single and a double action automatic pistol chambering the 9 mm Parabellum cartridge is also discussed. The barrel is rifled with six lands and grooves, right twist (one turn in 10"). Land widths are 0.062" (measured from tests); groove widths are 0.123" (measured from tests). The serial number is located on left side of frame over trigger guard. (JDN)

"Cooking-Off" Cartridges—NRA Technical Staff, *The American Rifleman*, 106(4): 42-4 (April 1958). A carefully conducted series of laboratory tests by H. P. White Laboratory are reported as follows: .22 long rifle exploded at 270°F to 288°F, .38 Special cartridge exploded at 276°F to 300°F, .30-06 cartridge at 288°F to 336°F and 12 ga Western Super-X shot shell exploded at 364°F to 398°F. Pieces of brass cartridge can fly with sufficient velocity to injure skin. (JDN)

A Test for Bloody Latent Palm Prints and Fingerprint—B. J. Conley and J. F. Andes, *Fingerprint and Identification Magazine*, 40(9): 16-7 (March 1959). The reagent used is a 50% saturated solution of benzidine in 70% ethyl alcohol to which 3% hydrogen peroxide is added, in a ratio of 1:3. The object may be sprayed or immersed in the reagent solution. As soon as a blue color appears, the area is washed with cold water and air dried. (JDN)

Tattoo File Proves Its Utility in First Use—S. Eckler, *Fingerprint and Identification Magazine*, 40(9): 18-9 (March 1959). A 3 x 5 card file showing the type of tattoo, the anatomical location, and departmental jacket number is maintained by the Cincinnati Police Identification Section. (JDN)

Paper Chromatography Applied to Lipstick Dyes—Simeon Pougheon and Zeev Moloster, *Review*

Internationale de Criminologie et de Police Technique, 12(4): 298-302 (September-December 1958). The authors' technique for writing ink chromatography, reported in the *Revue*, 12(3), is applied to lipsticks, using the same combination of solvents. A cosmetics manufacturer provided samples of Ketone Yellow, Erythrosine B, and Eosine 499, and lipsticks containing these dyes. Chromatograms of these samples resulted in clear separations, even when two or three of the dyes were mixed. Small portions of the lipsticks were macerated and the dyes extracted in about 1 cc of 10% ammonia. The lipstick dyes were identified in all chromatograms, and the fatty vehicle was found to have no influence on the RF of the stain. (JB)

Spectral Analysis in Fire Investigations—A. Schoentag, *Archiv fuer Kriminologie*, 122(5/6): 151-173 (November-December 1958). Twelve cases are reported wherein spectral analysis was used to examine evidence from suspected fires, including soot deposits, accelerants, and metals. (JB)

Bullet Holes in Metal—A. Schoentag and H. Hadersdorfer, *Archiv fuer Kriminologie*, 122(3/4): 174-176 (November-December 1958). A suspected tear drop-shaped penetration of unknown origin in the roof of an automobile was shown by the authors to have been caused by a bullet. Although the metal portion carried away by the projectile was not recovered, a close examination of the edges of the penetration revealed no scratches such as would have been caused by a tool. The bent area surrounding the hole also showed the characteristic dull sheen resulting from stress beyond the elasticity limit of the material. (JB)

Frequency of Palmar Patterns—S. A. Eriksson and A. Norinder, *Nordisk Kriminallteknisk Tidskrift*, 28(11): 257-270 (1958). Palmprints of 1,016 children and adults formed the basis for a statistical study of the occurrence of pattern configurations. Seven thenar and five hypothenar zone pattern types were identified, and their potential significance in twin diagnosis and anthropological paternity evidence was explored statistically. The occurrence of the relatively rare single transverse flexure crease is also discussed from the same point of view. (JB)

Injuries Caused by Falling Bodies—H. Hadersdorfer, *Archiv fuer Kriminologie*, 122(5/6): 191-194 (November-December 1958). Expert opinion was

requested in the gunshot injury of a woman who had sustained a wound of unknown source in the right shoulder. X-rays showed that a bullet had traversed the right lung almost vertically and lodged near the bottom. The victim had been a spectator at a carnival parade, as a part of which live ammunition (7 x 64 mm. rifle, 172 grains) was fired in the air. The question put to the laboratory: could one of the bullets thus fired have caused the injury described? Applying ballistic calculations, modified by formulas for falling bodies, to the projectiles involved the answer was affirmative. The resultant energy would approximate that of a 6.35 mm automatic pistol bullet 40 feet from the muzzle, i.e., about 60 feet/lbs., or sufficient to cause serious or fatal injuries. On the same basis it was found that ceremonial firing with shotguns could not cause injuries to persons. (JB)

Transportation Center at Northwestern University—Northwestern University has announced the administrative uniting of the Traffic Institute with the Transportation Center under Franklin M. Kreml, Director. Both will maintain its present program. The Transportation Center offers a broad program of graduate and undergraduate training aimed at solving major problems in the highway, rail, air, pipeline, and water divisions of the nations transportation industry. The Traffic Institute functions in the street and highway traffic field. (OH)

Society for Forensic Science—An Inaugural Meeting of the Society for Forensic Science is to be held October 31, 1959 at the University of Nottingham, England. Anyone desiring to attend this meeting must register in advance. It is intended to draft a constitution for a formal organization, the scope of which will include all individuals who are concerned with or professionally interested in expert evidence in course of law. A partial list of the fields of specialization include: Physics, Chemistry, Biology, Pathology, Toxicology, Questioned Documents, Arson Investigation, Fingerprints and Photography, Motor Engineering, Law in relation to scientific evidence. Anyone desiring further information should contact Stuart S. Kind, Convener, 18 Hall Lane, Harrogate, Yorkshire. (OH)

New Products

Tiniest Flashbulb—G. E. Ultraminiature—An all-glass miniature flashbulb that produces 7,000