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Police Science Notes

POLICE SCIENCE NOTES*

The Iodine-Silver-Transfer Process—A new procedure for utilizing iodine vapor in the development of latent fingerprints has been devised by Dr. John McMorris of the Pasadena Junior College, Pasadena, California. The new process, first announced by Dr. McMorris in a paper delivered before the California Division of the International Association for Identification in May, 1936, is described in considerable detail in the March, 1937, number of the Finger Print Magazine.[1]

Instead of the customary procedure of treating a suspected object with iodine vapor in some type of closed chamber, a special portable applicator is used for generating and applying the vapor which enables the operator to treat restricted areas of an object without disturbing adjacent parts and also to control more easily the concentration of vapor applied. The developed finger print is transferred and rendered permanent by placing a sheet of silver in contact with it for a moment and then exposing the silver to sunlight or light from a photoflood lamp. A strong black print of the latent image will be produced on the silver surface.

The applicator consists of two straight-form, single bulb, calcium chloride drying tubes joined together by means of a one-hole stopper; one tube contains anhydrous calcium chloride, the other a quantity of iodine crystals held in place with glass wool.

In operation, the breath is blown through the instrument, passing first over the calcium chloride, which causes it to be heated and dehydrated, and then over the iodine, which is vaporized by the warm air. The iodine vapor thus formed is carried out of the mouth of the tube to the surface of the object treated.

The process is applicable to many types of surface, such as paper, glass, wood and objects having a film of grease. The latent print is not destroyed by the iodine treatment and the usual powders can be used after the iodine has been applied. In addition, a number of transfers to the silver surface can be made from the same latent print.

Photography in Homicide Cases—A number of useful suggestions for the photographing of scenes of homicides or suicides are outlined in an article entitled "Photography and Criminology" appearing in the March, 1937, issue of *American Photography*.[2] The author, Mr. L. A. Waters, describes some of the elementary principles to be followed in inspecting and photographing the scene, and also presents a brief discussion of some of the problems involved in firearms identification. Several interesting cases are described and illustrated with a number of photographs.

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[1] McMorris, J.—The Iodine-Silver-Transfer Method for Recording Latent Finger Prints (*Finger Print and Identification Magazine, 18* (9): 6-10. 1937).

[2] Waters, L. A.—Photography and Criminology; Homicide and Suicide (*American Photography, 31* (3): 153-162. 1937).

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Firearms Identification — Powder Burns—The Court of Criminal Appeals of Texas in a recent murder case, *McCrary* v. *State*, 97 S. W. (2d) 236 (Tex., 1936), approved the admissibility of expert testimony regarding powder burns upon the deceased as indicating the distance at which the defendant's pistol had been fired—even though the expert's opinion was based only upon his general knowledge of powder patterns and not upon any actual experimentation with the defendant's gun or with the same type of cartridge which fired the fatal bullet. The witness' testimony was as follows: "I am a deputy sheriff . . . On numbers of occasions I have tested different guns to determine what distance they would have to be from an object to produce powder burns. I have tested a 32-20 pistol with a lead bullet to determine what distance it will produce a powder burn. From my testing of a 32-20 pistol I will say that it will produce a powder stain on an object that it is aimed at when it is as much as four or five feet from it. I do not know the chemical analysis of the powder that was used in this pistol [the deceased] was shot with."

The possibility of error as a result of such a procedure is apparent to the firearms technician even though in the instant case it was only necessary to determine whether any burns at all would be present upon a body shot at the distance alleged by the accused in his testimony.

Fingerprints — Photography — A recent decision of the Supreme Court of Kentucky in *Ingram* v. *Commonwealth*, 96 S. W. (2d) 1017 (Ky., 1936), held that the fact that a piece of broken glass containing a fingerprint impression which was found in burglarized premises had been left in a storeroom accessible to clerks and others before being turned over to a fingerprint expert did not render such specimen inadmissible where the glass had been "identified beyond question." The case also held that an expert witness could supplement his testimony with enlarged photographs illustrating identity between the evidence print and the suspect's print even though the witness himself had not made the photographs; the fact that such photographs were made in his presence and under his supervision was held sufficient.

Readers of the *Journal* may be interested in knowing that the witness who testified in this case, one H. G. Coffee, offered as part of his qualifications the alleged fact that he had studied the subject of fingerprint identification for two years at Northwestern University of Chicago—whereas the records of Northwestern University contain no reference to any person by that name ever having pursued any such study. Moreover, no such instruction has ever been offered except as incidental to brief courses in scientific methods of crime detection previously given for the benefit of law enforcement officers. Not even as a member of any of these classes is the witness' name recorded.

Expert Witnesses—Firearms Identification—Comment Upon Failure of Defense Attorney to Introduce Testimony of Person Who Examined Gun and Bullet for the Defense—In the case of *Commonwealth* v. *Bruno*, 188 Atl. 327 (Pa., 1936), a firearms expert testified for the prosecution to the effect that in his opinion certain bullets, found lodged in a plaster wall, had been fired from the defendant's revolver. He

also testified that at the request of defense counsel he gave the bullets and defendant's revolver to another person whom the defense had selected to examine them. Defense counsel did not introduce this person as a witness. Over objection, the trial court admitted testimony to the effect that this person had examined the revolver and had fired test shots from it. Later the court charged the jury: "This is for the purpose of permitting you to infer that, if called, he would have testified against the contention of the defendant, and for that purpose only." Upon appeal this charge was held to constitute reversible error. The appellate court stated: "It does not appear on the record that the person who examined the revolver was an expert, and in the absence of such a showing the conclusions to which he might have come were clearly inadmissible. Counsel for the Commonwealth rely upon Wilson v. Consolidated Dressed Beef Co., 295 Pa. 168, 145 A. 81, 85. There the plaintiff in a negligence action was permitted to testify in rebuttal that defendant's occulist examined her eyes and was not called by defendant. We said 'the neglect of appellant to call its own expert might permit the jury to infer that, if called, his testimony would not aid the defense.' A fundamental distinction is that there the potential witness was shown to be an expert, while here he was not. Application of the rule stated there is confined to cases where witnesses possess peculiar knowledge or opportunity, therefore presumably rendering their testimony of importance to the party in position to call them. The person designated by the defense to conduct the tests was not in such a position here so far as the record disclosed. In the absence of indication that he was an expert in the particular field with which his examination dealt, he stood in exactly the same position as a layman, whose testimony on such a matter would obviously be inadmissible. For this reason the charge was erroneous."

Expert Testimony Regarding Identity of Wheat—In the recent larceny case of *State* v. *Loges,* 98 S. W. (2d) 564 (Mo., 1936), the Supreme Court of Missouri upheld the admissibility of expert testimony to the effect that wheat found in the defendant's possession was "the same wheat" and "identical" with that in the bin from which wheat had been stolen and different from the wheat in the defendant's father's bin, which source the defendant alleged the wheat in his possession to have come from. The witnesses were experts in the testing and grading of wheat according to a "United States Government Standard Test."

Diphenylamine "Paraffin Test" for Gunpowder Residues—Admissibility in Evidence—The Supreme Court of Pennsylvania recently affirmed a murder conviction in which the results of a diphenylamine test for the presence of gunpowder residues had been admitted as corroborative evidence that the defendant had recently fired a revolver. *Commonwealth* v. *Westwood,* 188 Atl. 304 (Pa., 1936). Testimony to this effect was held admissible even though it was brought out at the trial that the test did not constitute an infallible one and that certain substances other than gunpowder were capable of producing the same blue coloration when brought into contact with the diphenylamine-sulphuric acid testing solution.