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POLICE SCIENCE TECHNICAL ABSTRACTS AND NOTES

M. Edwin O'Neill

Identification of Cog-Type Can Opener

In recent issues of the *Los Angeles Police Associations' Topics* there appears an article in serial form under the title "Physical Evidence—The Mute Witness." Part six of this series, published in the February, 1942 number, contains a description of an investigation in which the identification of can opener marks played an important part.¹

The author describes an arson investigation in which an examination of the attic of the premises disclosed a quantity of newspapers and three fruit cans partly filled with kerosene. The house and furniture had recently been insured and suspicion fell upon the owner.

"The owner denied any knowledge of the cans or papers and stated emphatically that they did not belong to him, as all his papers and cans were kept locked in the garage at all times. Also that he had never used the brand of food indicated by the labels.

"The garage was checked and found to contain a large stack of newspapers and a few empty fruit cans. None of the dates on the newspapers found in the attic were found in this stack. One of the cans from the attic had been opened by a cog-type can opener. An opener of this type was found in the kitchen.

"In order to prove that this opener had been used on the can found in the attic, it was necessary to use this opener on another can as a test. A strip was then cut from the top of each can, and the teeth marks made by the opener were compared with the aid of the comparison microscope."

By means of this examination it was possible to prove that the can opener found in the possession of the suspect had in fact been used to open the can found in the attic.

The article is illustrated with four photographs, one of which is a photomicrograph showing the matching of the tooth marks.

New Stop-Bath and Fixing-Bath Formulas

In the April and May, 1942 issues of *American Photography* (incorporating *Phototechnique* and *Camera Craft*) there appears an interesting article entitled "New Stop-Bath and Fixing-Bath Formulas and Methods for Their Revival."²

Because of the demand for acetic acid in war industries and the consequent reductions of supply and possible shortage, the authors, J. I. Crabtree, L. E. Muehler, and H. D. Russell of the Kodak Research Laboratories, conducted a search for a substitute for acetic acid and devised methods by which to conserve other photographic chemicals.

The article gives the results of their endeavors and should be of interest to police photographers and laboratory technicians. Part 1 in the April issue lists new formulas for stop-baths, using sodium bisulphite, vinegar, and other

¹ Jones, Lee, "Physical Evidence—The Mute Witness." *Los Angeles Police Associations' Topics* 2 (2): 5 (1942)

² Crabtree, J. L., Muehler, L. E., and Russell, H. D., "New Stop-Bath and Fixing-Bath Formulas, and Methods for their Revival." *American Photography* (incorporating *Camera Craft* and *Phototechnique*), 36 (4): 28-30; 36 (5) 12-14 (1942)

substitutes, and also describes a method for testing the strength of an unknown acetic acid solution. Part 2 (May) deals with fixing-baths, their exhaustion and revival. Several of the formulas given substitute 4.5% white vinegar in place of acetic acid. Among the many new formulas given, Kodak F-7, containing ammonium chloride, is of interest as it may be used for general photographic purposes and has the dual advantage of rapid fixing and long life.

The choice of acid substitutes given in the order of their preference is: white vinegar, sodium acetate with sodium acid sulfate, sodium bisulfite, and citric acid.

P. J. KISSANE

Police Duty at Air-Raid Incidents

An article "Police Duty at Air-Raid Incidents" by Sergeant C. E. Turner of the Wiltshire Constabulary, published in the January-March, 1941, issue of the *Police Journal* (London), should be of current interest to all police officers now that this country is at war.³

From the knowledge gained by experience, the author attempts to give some idea of the many exigencies which the police are called upon to meet and the manifold duties that they are asked to perform. To persons far from the scenes of such incidents, it seems a bit strange to say that the control of persons is a problem equal to, if not greater than that of caring for the sick, the injured, and the homeless. "The noise of a high explosive will no sooner have died away than a powerful suction wave will begin to exert a centripetal influence on the surrounding district," bringing the sightseer, the inquisitive, the morbidly curious, relatives, and others. The tact, the judgment, and the training of the police officer are sorely tried in an endeavor to control these mobs and to obtain qualified persons to perform the many necessary tasks.

The installation of loud-speakers on police cars has proved to be of invaluable assistance, not only in directing traffic, but in building and holding public morale and directing activities at the scene of incidents.

The author does not attempt to cover the entire problem in detail, but only to convey some idea of its gravity and immensity. He emphasizes that "duty to the community comes before duty to the individual" and makes several suggestions which could well be adopted in a civilian defense program.

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³ Turner, C. E., "Police Duty at Air-Raid Incidents." *The Police Journal* (London) 14 (1): 35-50 (1941)