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Police Science Technical Abstracts and Notes

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POLICE SCIENCE TECHNICAL ABSTRACTS AND NOTES

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The Detection and Estimation of Evolved Gases—J. G. Reynolds describes a simple apparatus in *Metallurgia*, 37:160 (Jan., 1948), which should prove useful in the analysis of evolved gases or volatile components of some stench compounds. It consists of a V-tube into one arm of which is inserted a tube drawn to a capillary, held by a rubber sleeve. Into the other arm, also held by a rubber sleeve, is inserted a tube closed at the bottom with a capillary, point downward, axially mounted and sealed into the tube forming a lower chamber. A 3 mm. hole is located in the wall of this insert tube a little below the juncture of the capillary. In operation the material to be tested is placed in the apex of the V-tube, the reagent is introduced into the lower chamber to a level above the bottom of the capillary opening and the reactant is introduced into the other arm. Mild suction on the reagent tube causes the gases or vapors to pass through the reagent.

Preparation of Organic Material for Spectrographic Examination—The following procedure is recommended as safe and thorough by the New York State Police Scientific Laboratory and is reported in the *Bureau of Criminal Investigation, New York State Police*, 12:10-11 Sept., 1947). To ten grams of sample 0.5 ml. of sulfuric acid and 100 ml. nitric acid are added. After boiling to reduce the volume 25 per cent, it is cooled and treated with 50.75 ml. of nitric acid and 4 ml. of perchloric acid. Heat is applied until sample is nearly dry. This method reduces the time required for complete destruction of the organic material.

Crime of Violence in Texas—The yearly *Texas Crime Report* for 1947 shows an increase of murder, homicide, rape and robbery for all areas. The trend is sharply upward for rural areas with the greatest change in counties having from 35 to 50 rural population per square mile. The urban areas showed the lightest increase in all crime. No attempt was made to interpret these statistics.

National Sheriff's Association—On April 5, 6 and 7 the 1948 convention of the National Sheriff's Association will be held in El Paso, Texas. The principal themes are "The Role of the Junior Deputy Sheriff in Delinquency Prevention," "The Sheriff's Responsibility in Rural Traffic Control," and "County Jails." Reservation can be arranged through the Executive Offices of the National Sheriff's Association, 715 Transportation Building, Washington 6, D.C.

Smokeless Powder Manufacture—The patent granted to E. E. Litkenhous of Vanderbilt University for the manufacture of smokeless powder is briefly described in the *Chemical and Engineering News*, 26:338 (Feb. 2, 1948) as follows: The nitrated cotton is extracted by solvent from the continuous nitration vessel, washed, blended and neutralized. This produces a uniform product in one day as compared to 30 days for the previous technique. No mention is made of any change in ballistic, chemical, or physical characteristics.

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