ulum was established in recognition of the fact that many graduates of the law enforcement program have obtained employment with private enterprise, rather than the governmental services. This program has received additional impetus from plant protection, labor relations, and personnel officers of large corporations, many of whom are interested in employing graduates with specialized training in this field.

It was inevitable that a program of twenty-two years' duration should eventually spawn a graduate study division. This was done in 1956. The move, however, was not accomplished without much study and inquiry, and still poses certain unresolved questions. Experience has shown that the fields of crime prevention, penal administration, and criminalistics have outdistanced other branches of law enforcement in recognizing the value of graduate degrees. Yet, it is unfortunate to note that the traditional areas of law enforcement, particularly municipal and state agencies, have only recently begun to recognize the value of college, pre-service training, and are beginning to recruit students with bachelor's degrees in police administration. It is difficult to speculate when graduate degrees will be meaningful in these areas. The MSU program takes cognizance of this current attitude and is moving cautiously in the field of graduate study, with the expectation, that in due time, the graduate program will enjoy the same success which the undergraduate program has achieved during the last two decades.

SUMMARY

This paper has not presented a detailed account of the Michigan State University program, for it is felt that the novelty of police education at the university level is no longer newsworthy, but rather, has tried to distill the thoughts and experiences of a school that has been engaged in this educational venture for over twenty years. The School has had the pleasure of seeing many of its graduates assume positions of responsibility in the law enforcement field and has benefited by their advice and counsel. The School has also grown from a one-man staff to its present group of fifteen. This steady growth and acquisition of a heterogeneous faculty has provided a stimulus for continuous self-appraisal and prudent revision of policy. It is the hope of members of the staff and student body that law enforcement practitioners will continue to maintain a progressive attitude toward the educational foundations of their chosen profession.
DETECTION OF CARBON MONOXIDE HEMOGLOBIN DURING ROUTINE BLOOD ALCOHOL ANALYSES

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In making routine blood alcohol analyses proteins are precipitated from the blood prior to distillation in order that foaming will not occur as the mixture is boiled. In normal blood samples the precipitate is a grey-brown color. The progression from red to brown is rapid in normal bloods when precipitated with 10% sodium tungstate and 3% normal sulphuric acid. It was noticed that a pink color is retained in the precipitate when carbon monoxide hemoglobin is present in significant quantities.

By watching for pink precipitates in routine blood analyses, it was possible to detect blood samples with significant quantities of carbon monoxide in them. In some of these instances investigators were unaware of carbon monoxide involvement. When a pink precipitate is observed, it is now a standard procedure in the Indiana State Police laboratory to run a pyro-tannic test on the blood sample to confirm the presence of carbon monoxide and make a rough quantitative evaluation. The results of the pyro-tannic test are given to the investigators immediately, and the blood sample is preserved so that it may be delivered to the toxicologist for a more detailed examination.

The observations may be made in the Harger micromethod (1) where the precipitate is filtered out as well as in the Shupe-Dubowski method (2), where the precipitate is made directly in the distillation flask. Observation should be made in the Harger method prior to filtration and in the Shupe-Dubowski method prior to the application of heat.

REFERENCES


1Editor's note: Carbon monoxide intoxication occurs in the operation of motor vehicles, and its effects may be mistaken for those of alcohol. Therefore, all samples submitted for alcohol determinations should ideally be tested quantitatively for carbon monoxide, but in the absence of such quantitative determinations this rough qualitative indication during the analysis for alcohol is something that all toxicologists should recognize.

2The Mine Safety Appliance Company Kit is used for these tests.