

CHEMISTRY—EDUCATION

Chemistry Can be Made As Cultural as the Classics

"CHEMISTRY can be made as definitely cultural as the classics, and in addition it is intensely practical," Prof. B. S. Hopkins of the University of Illinois said at a meeting of the American Association for the Advancement of Science. Prof. Hopkins spoke at a symposium on The Role of Chemistry in Education.

Chemistry's possibilities as a cultural influence arise in large part from its many close applications to human interests, Prof. Hopkins said. Its study can be at once a means of building up a sympathetic appreciation of the problems of human interest, and a preparation for making a livelihood.

One of the problems in presenting chemistry as a cultural subject, however, arises from this dual nature. Chemistry courses easily resolve themselves into strictly professional affairs, either for preparing students to be professional chemists or laying the foundation for their education in other callings in which a knowledge of chemistry is a necessary tool. Thus chemistry

courses may lose interest for students not undergoing such professional or pre-professional training.

Prof. Hopkins suggests: "In giving such students the sort of training which they need, a completely non-professional attitude should be assumed. If such students can be put in a group by themselves it is possible to avoid the professional attitude as well as the idea that the study of chemistry is a preparation for some other work. . . This plan makes it possible to emphasize the cultural side of chemistry in a broad general course and at the same time it insures better trained chemists, who are essential for continued progress in the science."

At the same meeting, Prof. J. H. Simons of Pennsylvania State College pointed to chemistry as a valuable subject to be included in a well-rounded general education because it "sharpens the wits" and teaches habits of orderly thinking.

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PHYSIOLOGY

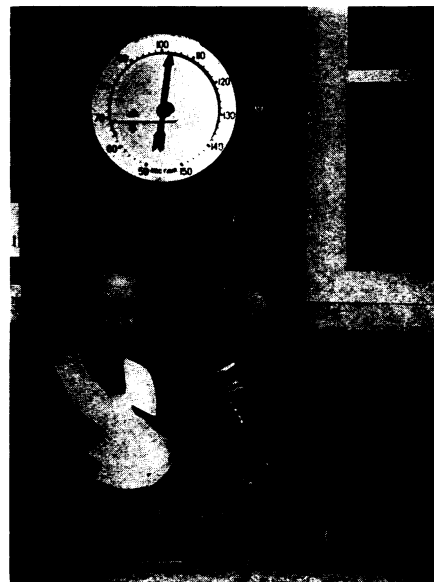
Fingertips Chilled After Smoking Cigarettes

SMOKING cigarettes actually chills the tips of fingers and toes about a half hour after the puffing is done, microscopic bloodflow tests by Dr. A. Wilbur Duryee and associates of New York Post-Graduate Hospital and Medical School demonstrated publicly.

Standard, mentholated and so-called denicotined cigarettes were used. All dropped the temperature five degrees on the average as measured by an accurate thermocouple thermometer placed at the base of the fingernail and the effect came faster in the so-called denicotined cigarettes. A non-tobacco cigarette made of paper sometimes produced the same chilliness but on the average gave a half degree rise. No changes in temperature of chest and forehead could be detected however. The cause of the

temperature decrease is contraction of walls of the smallest arteries of outer tips of fingers and toes.

The tests might have been expected to have resulted otherwise but inveterate smokers often get the largest temperature drop from cigarette smoking. For ordinary cigarettes the fingertip drop in temperature translated into the familiar degrees of the physician's thermometer was from 92 to 76 degrees in the most extreme case. In another case there was actually a half degree rise but on the average the drop was from 90 degrees to 85 degrees. For mentholated cigarettes the temperature in the most extreme case from 90 degrees to 80 degrees and on the average drop in fifty minutes after smoking was from 89 to 84 degrees. The ex-



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