

tions which had actually been asked by military investigators. He said that all the military services had agreed with him that they could comply with his memorandum and still conduct good security programs.

In an interview, Joseph J. Liebling, Skallerup's successor at the Defense Department, said that he had reiterated the Skallerup memorandum on 23 June and that it had been reemphasized by the service agencies on 20 July. The letter issued on that date by the Air Force Office of Special Investigations warned that "the critical interest focused upon these interviews dictates that our agents scrupulously adhere to the highest ethical standards during their questioning."

Other investigative agencies do not seem to have as detailed guidelines for investigators as the Defense Department does, but do agree that questions about a man's religious beliefs or his political associations (except those judged of a subversive character) have no place in an interview. The FBI, a spokesman indicated, relies on "the integrity of the agent" and does not provide written guidelines for him. The investigative agencies say that their investigators rely on open-ended questions (such as "Is he a person of good moral character?") rather than on inquiries about specific personal deviations. "We're not going to pry further if they say the applicant has fine moral behavior," commented Walter I. Waldrop who is now acting as the director of the CSC's Bureau of Personnel Investigations. Waldrop said that CSC investigators try "to avoid accusatory questions, although we don't manage it 100 percent." An FBI spokesman said that FBI agents are trained to avoid leaving "a trail of innuendo."

When a person is interviewed concerning an applicant about whom he has unfavorable information, he is often confronted with an agonizing personal choice. His situation can be especially difficult if the information was received in privileged circumstances, if it has not been completely verified, or if it does not seem relevant to the investigation being conducted. Several people interviewed by *Science* indicated that they met this kind of situation by "shaping" the truth so as not to conflict with what they perceive to be the values of the investigator. "I think that most people will lie to an investigator rather than refuse to cooperate," one lawyer commented.

Those who dislike lying can always

refuse to answer either part or all of an investigator's questions. All the investigative agencies acknowledge that the outside source or reference has a right not to answer questions. "We have no power of subpoena," Waldrop noted. All the federal investigative agencies contacted by *Science* said that an individual's refusal to answer questions about an applicant would in no way hurt the applicant's chances for a job or a security clearance, unless the phrasing of the refusal cast doubt on pertinent personal qualities.

There is no penalty for providing false or incomplete information to a visiting federal investigator or for refusing to answer his questions. Officials of investigating divisions of the Defense Department and the Civil Service Commission said that employees of their agencies would suffer no penalty if they refused to answer the questions of an investigator from their own agency. An FBI spokesman enunciated a similar policy for his agency but added "I'm sure that any FBI employee who had derogatory information about a person would furnish it." He explained that such behavior would be expected as part of the FBI's conception of "good citizenship."

All the investigative agencies contacted said that they did not keep sepa-

rate files on individuals who refused to cooperate with investigators. In many cases, officials indicate, no record is kept on those who refuse to talk to an investigator. The failure to answer specific questions may be included in the file on the applicant who is being investigated.

The agencies are not worried about those who refuse to answer their investigators, since the number of noncooperators is quite small. If the investigator finds one person who does not wish to answer questions, he usually has no trouble in finding full information elsewhere. "People will volunteer an amazing amount, including all the details," one investigative official exclaimed. "They will cooperate much more than you would ever imagine."

Since so many people seem to "tell all" to the government investigator, the noncooperator need have no fear that his reticence about an individual will endanger the government security program or imperil the selection of qualified government employees. The person who receives irrelevant or impertinent questions from a government investigator should remember that the investigator comes not as an inquisitor but rather as a supplicant and should be treated accordingly.—BRYCE NELSON

The "Columbia" Filter: University Takes a Second Look

Slightly more than a month after Columbia University announced that it had acquired the rights to a new cigarette filter (*Science*, 4 August), president Grayson Kirk went before a Senate subcommittee to say that the university is having second thoughts.

Kirk said that negotiations between Columbia and the tobacco industry have been suspended and that an "extensive testing program" would be undertaken before any licensing agreement would be signed.

Kirk left the matter hanging for a very good reason: Columbia has not decided what to do with the filter, invented by Robert C. Strickman. Almost everyone connected with the project likes to assume that licensing talks will be resumed sometime in the

future. But when? Who will decide? On what criteria? Firm answers are hard to find.

The catalyst in this confusion was the Consumer Subcommittee of the Senate Commerce Committee. University officials, including Kirk, met with the subcommittee's staff the day before Columbia was scheduled to testify. The staff members demanded, in essence, to know what made the Strickman filter different from other filters that are in use or under study. Most such products, they said, were able to reduce tar and nicotine (which the Strickman filter does), but they also have practical disadvantages. The chief problem is one of "draw"—the ease with which the smoker inhales.

During negotiations, representatives



Wide World Photos

Grayson Kirk

of American cigarette companies complained frequently of "draw" problems with the filter. But Kirk had apparently made no firm decision to halt licensing talks until he came to Washington and met with the subcommittee staff members, who had prepared some potentially embarrassing questions for the next day. By acknowledging the "draw" problem and pledging more testing, Kirk avoided these. His appearance before the committee was relatively brief, and the questions were mild. Columbia had been saved public embarrassment by the last-minute decision; none of the Senators really wanted to harass the university.

The visit to Washington, however, disrupted the entire project. Not only were talks with tobacco companies halted, but the announcement accentuated growing strains between the university's administrators and the inventor and his associates. The university is being cautious; those in the Strickman camp are for speed, and the testimony in Washington came as a complete and unpleasant surprise. They do not believe the problems are so great. Strickman dismisses the pressure-drop problem as a "red herring" and believes it can be solved. According to newspaper reports, Gordon Kaye, a Columbia researcher who has been working at the Strickman laboratory since August, agrees.

After the draw problem became apparent, the Strickman laboratory began studying ways of minimizing it. The normal pressure drop of most king-size filter cigarettes is 4 to 5 inches (pressure drop—the "draw"—is mea-

sured on a manometer in terms of the number of inches of water depressed). The closer the Strickman filter can get to this level, the better its chances of acceptance will be. By enlarging the filter chamber and regulating the particle size of the filter material, the Strickman laboratories are said to reduce the pressure drop to about 6 inches. Most American companies have been adamant about the pressure drop and unwilling to consider enlarging chamber size; one company, however, is reported to be showing interest enough to supply the Strickman labs with a sizable supply of long filter chambers.

Foreign companies are said to be more eager than their American counterparts to try the filter. Their reaction may stem, in some cases, from experience with filters that have slightly higher "draws" than American cigarettes, or, in other instances, freedom from the governmental pressures that are felt by American cigarette firms. The filter's chief asset, according to its proponents, is that it lets the taste come through. Testimonials, described as of independent origin, generally laud the filter on this score.

Progress on the filter is still suspended—no one knows for how long. Strickman makes light of the problem of pressure drop, but the fact that the problem is there—and was not acknowledged at the beginning—makes it important. The position of the American tobacco companies (if it is not, as some think it is, a bargaining posture) makes the problem all the more important.

President Kirk has appointed Ralph Halford, a chemist and ex-dean of graduate facilities, to oversee new tests of the filter. These will probably include comparison of its effectiveness with that of current filters at similar pressure drops. Once begun, these tests should take from 2 to 4 weeks. Halford is reportedly anxious to avoid becoming a grand adviser, and the test results will probably go to a committee for further evaluation. Conceivably, the question could revert to the trustees, though there seems to be no plan for this action now and it may depend more on the trustees' interest than on anything else.

The Strickman-Columbia story continues to be confused. When the university's leaders acquired rights to the filter, they were unprepared for what would follow. The central strategy was to use the institution's prestige to convince the tobacco industry to adopt the

filter. The subsequent controversy, whatever its merits, has undoubtedly tainted Columbia's image of purity, weakening its bargaining position in the process. If talks are resumed, the university's principal ally will be Adam Smith: if one company tries to steal the market by adopting the filter, it may force its competitors to follow suit.—ROBERT J. SAMUELSON

APPOINTMENTS

Harold C. Syrett, vice chancellor of the State University of New York, to president of Brooklyn College. He will succeed **Francis P. Kilcoyne** on 1 January. . . . **Richard L. Naeye**, associate professor of pathology and program director of the Clinical Research Center, University of Vermont College of Medicine, to chairman of the department of pathology, Milton S. Hershey Medical Center, Pennsylvania State University. . . . **J. A. Barker**, chief research scientist, CSIRO Division of Physical Chemistry, Melbourne; **P. O. Bishop**, chairman of physiology, Australian National University; **R. Hanbury Brown**, professor of physics (astronomy), University of Sydney; **A. McL. Mathieson**, chief research scientist, CSIRO Division of Chemical Physics, Melbourne, **G. J. V. Nossal**, director of the Walter and Eliza Hall Institute of Medical Research, Melbourne; **J. R. Philip**, assistant chief of the CSIRO Division of Plant Industry, Canberra, to fellows of the Australian Academy of Sciences. . . . **Lloyd W. Law**, NIH, and **Hugh J. Creech**, Institute for Cancer Research, to president and vice president of the American Association for Cancer Research, Inc. . . . **Charles V. Willie**, associate professor of sociology, Syracuse University, on leave as visiting lecturer in sociology, Department of Psychiatry, Harvard University School of Medicine, to chairman of the Department of Sociology, Syracuse University. . . . **Elio Passaglia**, chief of the polymer physics section, National Bureau of Standards, to chief of the metallurgy division, NBS. . . . **L. R. Christensen**, New York Medical School, to director of animal facilities, University of Toronto's Faculty of Medicine. . . . **Harry Rodney**, professor of biochemistry, Western Reserve University, to chairman of the department of biological chemistry, University of Cincinnati College of Medicine.