

Chapman is confident that government as well as private sources are at last awakening to the plight of the nation's medical schools.

It will take years to determine

whether the new program will thrive and whether its graduates will be better equipped for the careers they chose to follow. But there is no doubt that the people at Dartmouth Medical

School are in high spirits about what they are doing, and that the school appears to be making a swift recovery from the serious troubles that plagued it not too long ago.—D. S. GREENBERG

Strickman and Columbia: Inventor Seeks Return of Filter Rights

New York. The summertime marriage between Robert Strickman, the cigarette-filter inventor, and Columbia University is apparently headed for divorce, or at least the divorce court.

Strickman has asked the university to return the rights to his cigarette filter. He claims that Columbia, by not licensing the filter to interested cigarette companies, has violated the terms of the original contract transferring ownership. For the moment, Columbia has decided not to comply. Its trustees are awaiting the final results of new tests conducted on the filter, which should be ready within the next few weeks.

Relations between the inventor (and a small group of associates) and the university have deteriorated steadily since last August, when Columbia President Grayson Kirk appeared before a Senate subcommittee. Responding to pressure within the committee, Kirk promised that all negotiations with tobacco companies would be halted pending completion of a new series of tests. The waiting period dragged on, and Strickman became increasingly frustrated. As early as last September he charged, through a lawyer, that the university was in breach of contract; during the fall he sought to have the filter returned by offering to let Columbia keep its royalties if only he could be free to bargain with interested companies.

Despite these strains, the real breaking point came unexpectedly when NBC's Huntley-Brinkley news program ran a report highly critical of the filter. Purporting to have preliminary information about results of the university's new tests, NBC said: "But—

on the basis of the results so far—the Strickman filter is not revolutionary. It is not much better—if any—than commercial filters now in use." After the program, Strickman and his associates asked Columbia to issue a statement saying that the tests had yet to be evaluated completely and that, until they were, NBC's report was dangerously premature; Columbia refused, and simply said "no comment." This reply further offended Strickman, who has subsequently filed a \$500-million damage suit against NBC.

The university's tests, are, in fact, substantially complete. They consisted of comparisons between the Strickman filter and the standard celluloid-acetate filter with respect to effectiveness in reducing tar and nicotine at similar "pressure drop." The "pressure drop" is the key, for it measures the cigarette's ease of draw, a characteris-

tic considered highly important by American companies. According to one unofficial report, the tests' results showed the Strickman filter to be about 10 to 15 percent more effective than celluloid-acetate at similar pressure drops. These results, say the skeptics, confirm fears that the filter is hardly "revolutionary" and not very different from those in use today. Some friends of the filter, though now conceding that the first claims for the invention, by both Columbia and the press, were inflated, nevertheless conclude that the filter is still a significant improvement.

What really divides the two schools of opinion is the importance of "draw." American cigarettes have a normal draw of 4 to 4.5 inches, as measured by a manometer, in number of inches of water. The Strickman filter, to reduce tar and nicotine 40 to 60 percent below 10 milligrams of particulate matter (a maximum set by Columbia for any cigarette with the filter), would probably require a draw of at least 7 inches for most cigarettes. American tobacco experts are inclined to dismiss a draw so high as commercial suicide. Partisans of the Strickman filter seem to have retreated slightly from earlier statements that the "draw problem" can be "solved." The filter's distinguishing characteristic, they emphasize, is its property of letting the taste come through; they say that the draw problem, at the levels contemplated, is secondary and entirely tolerable.

That two foreign companies—reportedly Rothman of Canada and Imperial of Canada—were sincerely interested in using the filter seems to indicate that Strickman's claim is not entirely hollow. The inventor says that endless tests can determine only so much, and that the foolproof way to discover whether or not the filter can succeed is to put it on the market. "If people don't like it, they won't buy it," he says.

Amidst the contention, what Columbia will do remains as unclear now as it was 4 months ago. The endless



Robert Strickman

publicity obviously has not been good, but the filter—if it can be marketed successfully—still represents a small fortune. The university's dilemma goes beyond a simple decision to stay in or get out. How can it exit gracefully? A strong denunciation of the filter might not only make the university look silly (how did it ever become involved if the filter is *that* bad?) but might also bring a lawsuit from Strickman. A weak statement might have little public impact and leave the university's prestige still associated with the project. There is also the matter of Strickman's feelings. He wants to set up a charitable trust with Columbia's portion of the royalties and then divert considerable sums to the Columbia medical schools; a sharp, critical statement might quickly remove Columbia as a beneficiary of the trust.

Ambiguity and delay may be Co-

lumbia's best friends. Despite the months that have passed since the Senate hearing, the university still has made no firm plans for new taste tests. The initial tests made last spring have been challenged as inconclusive, and more tests could take 3 or 4 months.

Will Strickman & Co. wait this long without going to court? More than money is at stake. At 57, Strickman would undoubtedly like to have a handsome cash reserve, but, equally important, he has, as one colleague puts it, "an incredible emotional attachment to this thing [the filter]." The strange turn of events and the countless delays have bewildered and embittered him.

Nor is this the only interest to be considered. From the beginning, a group of friends has had a share in the potential proceeds of the filter; many—perhaps most—of these men

helped Strickman bear the costs of the original research and testing. The membership of this group has never been publicly revealed, but it almost certainly includes William Suitt, the advertising man who has helped Strickman all along, and Robert Raum, a tax lawyer. In all, the Strickman group would receive nearly half the returns from the filter; during the fall Columbia tried to change this royalty distribution to its own advantage.

The Strickman-Columbia story is a strange odyssey into many tangled worlds: the controversy over smoking and health; congressional politics; university finances; network journalism; and small-time invention. No one knows where the trip leads next, but if the past is any key to the future, there will be more confusion and controversy before journey's end.

—ROBERT J. SAMUELSON

National Academy of Sciences: Unrest Among the Ecologists

Many ecologists doubt the ability of the National Academy of Sciences (NAS) and the National Academy of Engineering (NAE) to advise the government properly on problems of environmental pollution and disturbance. Moreover, some environmental scientists within NAS itself find it deplorable that, in setting up an Environmental Studies Board last year to coordinate studies of environmental problems, the leaders of NAS and NAE saw fit to include five people with backgrounds in industrial research but no one with a background in environmental biology. In the view of these critics, the environment's "despoilers" may be better represented on the new board than its "preservers."

It appears likely that in the coming months an ecologist will be appointed to the board and that much of the mistrust will be dispelled. However, if Lamont Cole of Cornell, president of the Ecological Society of America, speaks for the majority of his colleagues, clearly the gulf of misunderstanding between ecologists and the

leaders of NAS is too great to be easily bridged. "The National Academy doesn't know enough about ecology to know how ignorant it is," Cole said in an interview with *Science*.

Although Cole is outspoken and not given to understatement, he is clearly not alone in his view that NAS, in its appointment of committees and in some of its reports, has shown too little regard for ecological considerations. Ecologists, Cole indicates, think the government should not be dependent on the Academy for its principal source of advice on questions in their field. Last August, he says, the Ecological Society, which previously had shown considerable caution and timidity about intervening in political matters, reestablished and reinvigorated its public affairs committee. On several occasions members of this committee, now chaired by W. Frank Blair of the University of Texas, have visited Washington to talk with members of Congress—among others, Senator Edmund S. Muskie of Maine, a leader in the antipollution field.

Moreover, the Ecological Society will seek to have universities which have programs in ecology establish and operate a national institute of ecology, Cole says. This institute, for which a location has not yet been proposed, would (i) operate a research center or centers; (ii) advise the government on ecological questions and, on request, make studies in depth; and (iii) operate a data bank in conjunction with the research center.

Cole says that ecologists at some 15 universities are interested in having their institutions join in establishing such an institute. However, no university administrators have yet been approached. The institute, as now conceived by an Ecological Society committee, would be operated by a university consortium and could be formally incorporated once as many as five universities agreed to establish it. Its financial support might come from the universities themselves and possibly from endowment funds contributed by foundations. The institute, Cole says, would be needed "even if the Academy were competent in ecology."

According to Cole, the Academy has repeatedly entrusted studies involving ecology to committees chaired by, and largely made up of, scientists whose training and experience have been principally in other fields. He believes that in part this is so because the Academy membership includes only two scientists—G. E. Hutchinson of