News and Comment

Tobacco: Congress Moves Closer To Requiring Warning of Danger Included on Cigarette Packages

The long campaign to compel placement of a health warning between the smoker and his cigarette appears to be on the verge of success. But there is a noticeable lack of lamentation from tobaccoland, which apparently has concluded that the expected warning is a relatively painless way out of a public relations problem that once seemed hopeless.

As things now stand, the Senate Commerce Committee and the House Committee on Interstate and Foreign Commerce are in the advanced stages of considering bills that would require a health warning on every cigarette package. The House version, which is similar to the Senate's, calls for the statement, "Caution: Cigarette smoking may be hazardous to your health." The Senate bill calls for "Conspicuous and legible type," while the House bill specifies that the type be no smaller than 10 point. (The type in this *Science* article is 9 point.)

The key difference between the bills is that the Senate's would leave the way open for the Federal Trade Commission to impose the warning on all cigarette advertising, whereas the House version specifically removes the matter from FTC jurisdiction. And therein is the source of industry's comfort, for the exclusion of the FTC now appears likely to prevail, and the manufacturers seem to be satisfied that as long as they can escape including the health notice in their advertising their prosperity is assured.

With pack in hand, the manufacturers apparently reason, the smoker is a very short way from lighting up, but if the advertising that is inducing him to smoke must simultaneously offer a contrary message, his inclination to cut down may be reinforced. Fur-

thermore, with all the artistic skill they can command, it is not likely that the manufacturers will achieve any breakthroughs in making small type appear conspicuous.

In the course of the hearings, the industry and its congressional friends declared that they considered the proposed warnings scientifically unjustified, but it was apparent throughout that they felt they could live with them. A number of factors are thought to account for this stance. First of all, the public now seems to be inured to the message that cigarettes can kill. Despite the initially depressing effect on sales that was produced by the Surgeon General's report, Smoking and Health, cigarette consumption has bounded back. The report, which came out amid great publicity in January 1964, was followed, for example, by a 10.7-percent decline in shipments by the R. J. Reynolds Tobacco Company in the first quarter of that year, as compared with the same period in the previous year. But, despite the continuing public attention to the tobaccoand-health issue, sales started to increase, and just last week Reynolds reported that first-quarter sales for this year had passed the 1963 mark, which was a record year for the tobacco industry.

Thus, with this experience behind it, the industry now sees less reason for concern about the economic effects of the U.S. government's coming out against tobacco. On top of this, the industry can also expect that, once the package warning is in effect, the anti-tobacco forces will be in a tactically weak position to push for stronger measures. Any proposal will inevitably be countered by the argument that the smoker has been given the facts and it is no business of government to intervene further in his personal habits. And, finally, the warning on the package is looked to by the industry as a useful defense against the increasing number of lawsuits being brought by smokers who contend that cigarettes have injured their health. The industry has successfully defended itself in these cases, but tobacco executives are extremely nervous about the possibility that an adverse decision could provide a precedent that might prove ruinous. However, once having acknowledged the health hazard with a warning on each package, they would presumably have an impregnable legal defense.

Within the scientific community, a standard mode of operation in dealing with controversial matters is to appoint a professionally distinguished and, as far as possible, impartial committee to produce findings based on evidence. The process works reasonably well within the boundaries of science, principally because on purely scientific matters it is relatively easy to agree on terms of reference and criteria, and also because once an influential group has spoken, dissent can be professionally perilous. The events that have taken place since the publication of Smoking and Health clearly demonstrate, however, that the process cannot easily be applied to matters in which science is tangled up with public policy and large economic interests.

The committee that produced the report for the Surgeon General was intended to be as impartial a body as could possibly be assembled on the issue of smoking and health. Membership was denied to any person who had previously expressed himself on the issue, and veto power over the proposed members was given to the tobacco industry and to voluntary health organizations concerned about the effects of tobacco. With these extraordinary ground rules, it was reasonable to expect that the committee's findings would be universally accepted as the best available scientific statement on the health hazards of tobacco. But in the 15 months that have passed since the report was published, the tobacco industry has turned in a superb performance aimed at undermining public confidence in the committee's find-

Although it was the conclusion of the committee that "Cigarette smoking is a health hazard of sufficient importance to warrant appropriate remedial action," the manufacturers have continually held to the line that not enough

478 SCIENCE, VOL. 148

is known to warrant any effort to discourage smoking. In what now must be regarded as a successful effort to head off government action against their advertising, the manufacturers have set up their own policing program and have agreed to discontinue advertising that might be construed as luring young people to smoke. But while taking these measures, they have all along been feeding the public's hope that the Surgeon General's report was scientifically erroneous. Platoons of public relations men have seen to it that the public is quickly apprised of the views of any scientist who dissents from the Surgeon General's report, and when the two congressional committees held their hearings, a long parade of scientific witnesses left the legislators with the impression that there is no more evidence against tobacco than there is against tomato soup.

The question of the social responsibility of the scientific community in such matters is an extremely difficult one. Clearly there are genuine differences of opinion among competent researchers, and the scientific case against tobacco is by no means airtight. But at the same time it must be acknowledged that the evidence against tobacco is extremely weighty, and since the health hazards seem to be so great, the issue boils down to just how much evidence is required before effective steps can be taken to discourage the public from indulging in a pleasurable danger. As science and technology impinge more and more on society, an increasing number of scientists are feeling uneasy about the social effects of their work. And various organizational efforts have been made, such as the committees for nuclear information, to provide a forum for scientists to interpret science for the general public. In a sense the Surgeon General's committee was such a device, but its findings. respectable as they may be, do not stand much of a chance in competition with a \$7-billion industry. Some may feel that the solution lies in better scientific education of the public, so that it will be capable of judging conflicting scientific claims. It is impossible to argue against this goal, but a review of the scientific testimony before the congressional committees suggests that the offense holds a mighty advantage over the defense, and it is going to require a vast amount of education to give the public a fighting chance.

—D. S. GREENBERG

Slicing the Pie: Russian Argues Astronomy in U.S.S.R. Is Neglected While Nuclear Physics Prospers

It isn't only within the American scientific community that covetous looks are being cast upon the seemingly plump budgets of high-energy physics.

According to the New York *Times*, Soviet astronomers, dissatisfied with support for their work, have assailed the financial priority given to nuclear accelerators. And, as is the case in this country, the nuclear physicists have replied that their discipline is on the brink of great and far-reaching discoveries.

The debate, the Times reports, is revealed in a recent issue of the Bulletin (Vestnik) of the Soviet Academy of Science. It appears that at a meeting of the presidium of the Academy, Lev A. Artsimovich, a physicist, stated that the United States had more large telescopes than the Soviet Union: he charged that the importance of astronomy was being undervalued in the Soviet Union, while unduly generous support was being given to high-energy physics. "At the present time," he was quoted as saying, "expenditures on astronomical work in our country are no more than a few percent of the investments in elementary particle physics. Our progeny will probably be surprised that we divided in such strange proportions the efforts directed to investigate the great world of stars and the artificial world of elementary interac-

Artsimovich's attack was replied to by V. I. Veksler, a Soviet leader in nuclear physics. Veksler defended the appropriations for high-energy physics and was reported as saying that the field is "on the threshold of a fundamental revolution."

Among laymen and nonparticle scientists, the controversy will undoubtedly stir up the question of whether the U.S. and the Soviets should share the cost of one of the great new accelerators now under consideration in both countries. The subject, it appears, has been touched upon at international meetings, but it seems that neither the Soviets nor the Americans are particularly warm toward the idea. The reasons aren't hard to see. American physicists have had enough of a problem working out the details of sharing U.S. accelerators with each other, and aren't anxious to complicate the matter by bringing the Russians into the pic-

ture. Whether the Russians have similar problems isn't clear, but in both countries, it is unlikely that the political councils would give a high priority to sending vast sums abroad for the esoteric pursuit of new particles. The U.S., with its greater affluence, might come around to the conclusion that Soviet-American cooperation in this field would encourage a politically desirable spirit of togetherness. But the Soviets, who have tended to pick and choose their foreign investments with close attention to political consequences, might be expected to feel that there are better foreign investments than highenergy physics.

In any case, U.S. physicists aren't pushing the matter too hard. The 1963 Ramsey Report on high-energy physics acknowledged that Soviet-American cooperation in this field would be what it described as a "major breakthrough." But having said this, it went on to suggest that if the two countries decide to work together, the costs should be "related to expenses in the foreign-policy field rather than being considered in competition with the national accelerator program." The report didn't explain the differences between national and international particles, but whatever they may be, neither the Russians nor the Americans show any fervor for a joint venture in this field.—D.S.G.

Congress: Legislative Oversight Problem Acquires New Dimensions as Great Society Bills Are Passed

Any doubts that President Johnson could effectively exploit the big Democratic majority in Congress should have been banished by the legislative business transacted in the normally unproductive period before Easter. Appalachia and school-aid bills have been signed into law, Medicare and voting rights bills seem assured of passage, and other legislation is flowing through the pipeline.

When this is added to the record of Congress in Johnson's first year in office—a tax cut, a civil rights bill, aid to higher education, and the poverty program—it is hardly credible that 2 years ago critics were diagnosing the state of Congress as one of legislative catalepsy brought on by the committee system and an irrefragable seniority rule

The new welfare and education programs involve the spending of sizable