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school level which is a much more difficult art than college teaching is. But to determine one's qualification for teaching by the numbers of education credits one has accumulated is a false standard that should be changed. If the serious shortage of science teachers is to be relieved, ways must be found to make teaching not only attractive but possible for qualified people. I am not optimistic. Certainly the changes will not come from suggestions made outside of the education profession. In spite of millions spent on science curricula, the administrative hurdles remain to thwart teacher recruitment. Anyone now in industry who might be attracted to this call for missionaries had better look carefully before he makes the leap.

DAVID L. KENDALL  
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West Hartford, Connecticut 06107

### Geography Favors R & D Awards

Papier's remarks (Letters, 9 Feb.) concerning the allotment of federal funds for research and development and the neglect of the East-North-Central states are not a fair appraisal. He notes that his area produces 23.7 percent of the Ph.D.'s awarded in science and engineering and has 19.7 percent of the population and pays 25.6 percent of the federal taxes. Yet it received only 6.4 percent of the federal research and development funds. These funds, however, cannot be awarded on the basis of population, wealth, taxes, or even centers of learning.

The AEC could hardly put its New Mexico and Nevada test sites in the Chicago-Cleveland-Detroit area. I doubt that the test facility for tied-down rockets was located in a rather unsettled area of southwestern Mississippi (where it probably benefits Louisiana more than any other area) merely for love of Mississippians or because of their political influence. In fact, it was selected because the region was relatively unsettled and yet had water courses of considerable size, this combination being rather rare in the United States today. By the same token, the base for rocket take offs was not put in Florida for any particular reason other than the weather and the fact that there is a wide space of open ocean between southern Florida and Africa. With regard to the aeronautical industries and their test facilities, the weather is a mat-

ter of consideration. Therefore, these industries move to the West and Southwest. Additionally, wide open spaces are desirable for obvious reasons, and there are very few of them next to big cities and labor pools except in the Southwest and West.

There are many types of brain drains in the United States if moving from one state to another is to be considered in that category. Mississippi spends a higher percentage of its tax dollar on its public school system than any state in the nation but it still spends less per child enrolled than any other state. As a result, trained teachers leave here in droves every year and when the Mississippi Education Association meets at its annual convention, some of the more populous states set up "recruiting suites" in the same hotel. When I was a boy in the 20's most people in the South who wanted an advanced education went North and few of them returned. Today when I travel out-of-state it is common to run into somebody in high position who hails from Mississippi. We may feel that such things are unfair, but I always remember that the South was taught the hard way that this is one country, come what may. In any case, federal research and development funds cannot be distributed on regional, educational, or population bases without grave inefficiency.

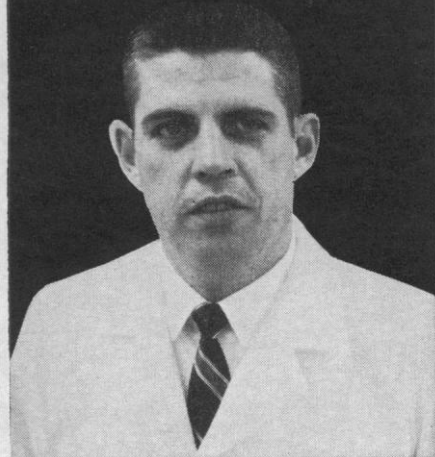
GORDON GUNTER  
Gulf Coast Research Laboratory,  
Ocean Springs, Mississippi 39564

### Are Tobacco Taxes Tyrannical?

Turnipseed has misconstrued the effects of the federal government policies with respect to tobacco (Letters, 23 Feb.). These policies are indeed inane, but the net effect of them is to reduce consumption of tobacco rather than increase it. The agricultural program itself consists mainly of restricting the amount of land upon which tobacco can be raised with the objective (an objective which has been realized) of reducing the total amount of tobacco raised, and hence increasing the price obtained by the farmer. In my opinion this is a foolish policy, but it does not involve much use of "my tax money to support tobacco farmers." In fact, the price of tobacco to the smoker is further raised by very heavy taxes. Assuming that Turnipseed is (like myself) a nonsmoker, it is fairly certain that the benefits he gets from the use

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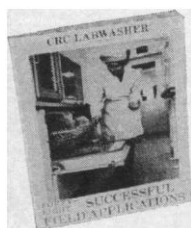
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of these taxes by the federal and state governments greatly exceeds the slight menace to his health which other people's smoking causes.

This is not to argue that the status quo is the best of all possible worlds with respect to tobacco. It isn't even a very good world. If we wish to improve it, however, it is necessary to understand what is actually being done.

GORDON TULLOCK

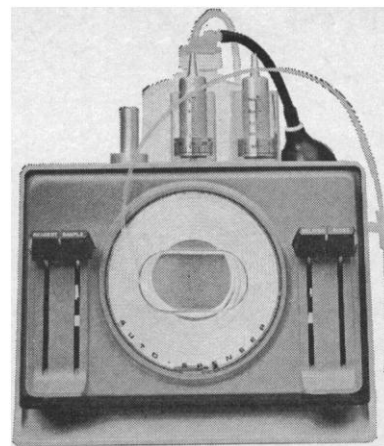
Department of Economics,  
Rice University,  
Houston, Texas 77001

## Dams Take Planning

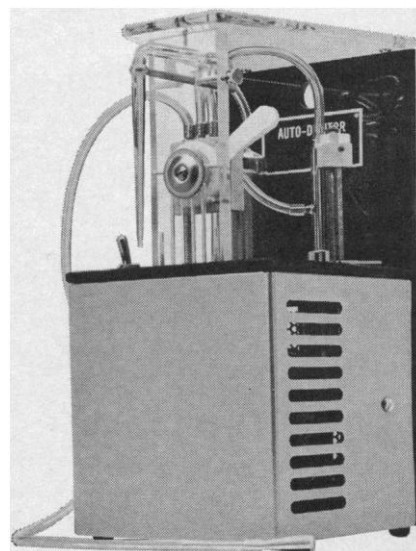
Nelson, in his article entitled "Expansion of Idaho reservoir: Indians, scientists on warpath" (12 Jan., p. 173), refers to the proposed replacement of the existing American Falls dam as suiting "the desires of the Bureau of Reclamation, an agency which needs new work to continue justifying the existence of its highly developed engineering staff" and says that "it may seem especially attractive to the Bureau during the current budget crunch, since the Administration is actively discouraging all new construction projects which are not directly related to Vietnam. If any new dams are to be built in this country, a likely candidate for construction would be a replacement for a defective structure."

The Bureau of Reclamation does not dream up dam constructions simply as makework projects. All our projects are presented to the Congress after review by the Bureau of the Budget and no construction contracts are let until a project is fully authorized and funds are appropriated. This process requires two separate actions by the Congress. Under such circumstances and particularly on controversial projects such as the American Falls proposal, it requires a matter of years to authorize the project and get it underway.

We do not envisage the project as one which should be undertaken during the existing budget emergency. The existing dam is deteriorating, but our engineers are convinced it will last for many more years provided proper precautions are taken in the operation of the structure to insure its safety. This will result in a winter drawdown of the reservoir and loss of water. We feel it must ultimately be replaced. While there is no question that the available water in the Upper



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SCIENCE, VOL. 160