hike for economics). But he perceives them primarily as support functions: "our main responsibility is to select the ones important to the physical sciences." Bloch thinks work needs to be done in sorting out the priorities in social and behavioral sciences and in coming up with some "common denominators" (the National Academy of Sciences is currently trying to do just this); meanwhile, "the foundation can't be held responsible for doing everything."

Bloch also appears to be cautious about any expansion of NSF's international role, although he says "with the rest of the world making progress in science and engineering it behooves us to look at the international program with new interest." Former NSF director Guyford Stever, who is heading a study on the subject, believes the foundation should take a more prominent part in international science policy, but Bloch is reluctant to have NSF mixed up in any initiatives other than those related to basic research. Appointing a "foreign secretary" (one of Stever's suggestions) for NSF "is a bit too highfaluting for me," says Bloch.

Bloch wants to promote global cooperation insofar as it benefits American science, but he does not see NSF taking a direct role in addressing global problems, such as how to build up the scientific infrastructure of developing nations. "I am more directed toward making sure that our own infrastructure and research is the best in the world."

Bloch makes no bones about the fact that he sees the issues in a very competitive light. "I think we have to try to be the best in all those areas that are of importance to us. I am pretty sure there's an area of no importance to us but I don't know what it is. . . . A lot of people are upset about that kind of approach to life. They say science is international, so who cares who does it. I say science is no more international than commerce is. . . . I think it's a highly competitive field, I don't apologize for it."

Bloch's views appear to be very much in line with those of General Electric executive Ronald W. Schmitt, chairman of the National Science Board (NSB). "No board is effective without extremely close working relationship with the CEO, and we have that," says Schmitt. Ties with the NSB, which intends to take a more active role in the direction of NSF, will presumably be further enhanced by the appointment of board member John H. Moore, an economist at the Hoover Institution, to the deputy directorship.—**CONSTANCE HOLDEN**

Newman's Motor: Does It Work or Doesn't It?

The creation of a perpetual motion machine would be, as one scientist puts it, "one of the world's greatest inventions." But a man who claims to have invented such a machine is refusing to submit the device for rigorous scientific testing.

For the past 5 years in a widely publicized battle, Joseph Newman of Lucedale, Mississippi, has pitted himself against the U.S. Patent and Trademark Office in hopes of securing a patent on his machine. When the patent office indicated it was unconvinced that the device works, Newman sued the agency to make it reconsider (*Science*, 16 November 1984, p. 817; 10 February 1984, p. 571).

Last week, the court battle took a slightly new turn. U.S. District Judge Thomas Jackson ordered Newman to submit the machine to the National Bureau of Standards for testing. Newman said he will not comply.

Newman asserts that the bureau had a chance to test the device back in 1982, but it refused. The bureau has a different recollection of the circumstances. According to bureau spokesman Mat Heyman, Newman showed up at the bureau's doorstep virtually unannounced and asked for a test of the machine, which he had hauled up from Mississippi on the back of a truck. Bureau staff agreed only to observe, not test, the machine since the bureau has a policy to test only those devices submitted by other federal agencies. At the time, the bureau also did not have the proper equipment. Nevertheless, the bureau did make arrangements with Auburn University, the closest facility to Newman's hometown with the proper equipment, to test the machine. Newman never showed up, according to Heyman.

Newman also claims that the court's order requiring a demonstration of his machine sets an unfair precedent. "No other inventor has had to demonstrate his invention," he says. Not so, says patent office spokesman Oscar Mastin. He says it is not uncommon for the patent office to require testing before a decision is made to issue a patent, especially in unusual cases. "This is an unusual case," Mastin says.

Newman complains that he is not about to spend more money to ship his machine back to Washington for testing. Meanwhile, he has hired a public relations firm to publicize his cause.

Newman has until 30 May to present his machine to the bureau, which now has the necessary equipment. The next court hearing is set for 11 June. If Newman does not submit the device, the judge said, "I will draw inferences."—**MARJORIE SUN**

NIE's Director Ousted, Its Survival in Doubt

The National Institute of Education (NIE), storm-tossed since its inception, may be headed for the guillotine under the leadership of William J. Bennett, the provocative new Secretary of Education. Bennett has asked for the resignations of NIE director Manuel J. Justiz and his boss, Donald Senese, assistant secretary for the Office of Educational Research and Improvement.

The action appears to be a step toward remodeling the department along the lines recommended by the conservative Heritage Foundation in its 1984 government blueprint, *Mandate for Leadership II.* Observers anticipate that Bennett will eventually consolidate the NIE and the National Center for Education Statistics into a single office of research and statistics. This expectation has been reinforced by Bennett's hiring of Eileen M. Gardner, author of the Heritage recommendations, as a policy adviser.

Reportedly chosen to replace Senese is Chester ("Checker") Finn, an education researcher at Vanderbilt University who helped write the Heritage manifesto. Finn, a friend of Bennett's, participated in the original design of NIE when he was working for Daniel Patrick Moynihan in the Nixon White House, but has since denounced the agency for being captive to special interests and failing to confine its focus to basic research.

Education research advocates are particularly concerned over the fate of the educational laboratories and centers competition, which will culminate

in awards next September (*Science*, 15 June 1984, p. 1219). According to E. Joseph Schneider of the Council for Educational Development and Research, the labs and centers program, which takes 60 percent of the $52 million NIE budget, is regarded by conservatives as a "Great Society" leftover that provides bastions for liberal educational philosophy.

Although Justiz attracted much criticism for a controversial $7.6-million award to Harvard's new educational technology center (*Science*, 27 January 1984, p. 378), he has been credited with putting the agency on a more stable footing after it was nearly dismantled during the first 2 years of the Reagan Administration. He reportedly wants to stay on until the competition is wrapped up. Then he wants to find another job in the Administration.

—CONSTANCE HOLDEN

Jury Clears Bendectin

In a major victory for Merrell Dow Pharmaceuticals, a federal court jury ruled on 12 March that the drug Bendectin does not cause birth defects. The drug was on the market for 27 years as a treatment for nausea and vomiting of pregnancy and was used in an estimated 33 million pregnancies worldwide. Merrell Dow withdrew Bendectin from the market in 1983, citing the pressure of our "litigious society." Thousands of plaintiffs were suing the company, claiming the drug caused birth defects.

The verdict was the culmination of legal proceedings that began in April of 1984 when nearly 400 plaintiffs who allegedly were injured by Bendectin banded together. Cincinnati judge Carl B. Rubin scheduled a trial to determine, first, whether Bendectin caused birth defects and, if so, whether Merrell Dow was liable for damages. But the trial was canceled when the attorneys for Merrell Dow and the plaintiffs got together to reach an out of court settlement. Merrell Dow agreed to establish a $120 million fund paid into over 20 years to settle all present and future claims against the drug.

Some of the plaintiffs' lawyers, however, wanted to opt out of the agreement and settlement and sue Merrell Dow on their own. Since the agreement did not permit any additional suits, they sought to have it overturned. The U.S. 6th Circuit Court of Appeals overturned it on technicalities. As a result, the case came to trial again on 4 February of this year, but this time it involved 1100 plaintiffs.

After 20 days of testimony, the five-woman, one-man jury determined that Bendectin did not cause birth defects, thereby ending the case. Two other Bendectin suits have come to trial so far. In one, the company won and in the other the jury awarded $750,000 in damages to the family of a girl with a deformed arm and hand, but a judge overruled the verdict, saying that, in his opinion, the evidence presented to the court did not establish that Bendectin was the cause of the girl's birth defects.

Jerome Skinner, an attorney for the plaintiffs, plans to appeal the 12 March ruling on the grounds that the way the trial was set up—addressing the question first of whether the drug caused birth defects and then whether the company was liable—hurt the plaintiffs' chances.

Even if Skinner loses his appeal, the Bendectin story is not yet over. According to Merrell Dow spokesman William Donaldson, there are still a few hundred additional suits that have been filed in state courts and, he says, "these must be pursued individually." But, he remarks, "Of course, we're very pleased. The verdict is consistent with the scientific evidence."

—GINA KOLATA

Europeans RACE to Close Telecommunications Gap

Paris. Can catchy titles for research programs help Europe close the technological gap with the United States and Japan? The European Commission in Brussels, which is responsible for the joint activities of the ten member-countries of the European Economic Community, hopes they can. After ESPRIT (information technology) and BRITE (industrial technology), the commission is expected this week to approve the first stage of an ambitious 10-year program in telecommunications, known as RACE (Research on Advanced Communications technologies for Europe).

The main goal of the new research program, which will still have to be approved by each member-country before it can be put into effect, is to stimulate a wide range of research efforts aimed at providing Europe with a single, integrated telecommunications system, based on a variety of technologies from satellites to optical fibers.

As with ESPRIT, which is widely regarded as one of the most successful innovations in European research policy in recent years, each research project will require the collaboration of at least two institutions—which may be universities, industrial research groups, or government laboratories—and will receive half its funding from the commission. The balance of the funds will be raised from other sources, particularly the telecommunications industry.

Finance for the first 18 months' pilot research projects is likely to be relatively modest. A total budget of $30 million is currently being proposed. But if the pilot program is successful, total spending on RACE could reach $650 million over its 10-year lifetime, the same order of magnitude as was approved last year for ESPRIT.

Commission officials in Brussels admit that one important goal of the new program is to use joint research projects as a way of encouraging both Europe's major telecommunications companies and its powerful government-run telecommunications agencies to harmonize their practices. In the past, strong protectionism at home and fierce competition for foreign markets have made this difficult to achieve.

Also in common with ESPRIT, the involvement of American-owned companies keen to play a leading role in the European telecommunications industry through the activities of their subsidiaries is expected to be controversial. They are unlikely to be excluded, however.

European governments have so far given the commission's proposals for RACE a cautious welcome. For example, Geoffrey Pattie, Britain's minister of state for space and information technology, said in Paris on 18 March that "unless we cooperate together in advanced technologies, we will be rapidly extinguished by the competition coming from outside Europe."

—DAVID DICKSON