Burndy library, which is all devoted to electricity and electromagnetism. People had been playing with electricity long before Volta, but the only kind they had to work with was static electricity. At the Burndy library a number of electrostatic generators are featured, including a little cupid-adorned device made in Venice in 1740, the "oldest electrical device in the western hemisphere." These generators

From Dibner collection at the Smithsonian—Leonard Fuchs, who, in his celebrated Herbal, *introduced many New World plants and emphasized the medicinal value of others. The American* fuchsias *were named for him. [Photo courtesy of National Museum of History and Technology]*

all have large glass disks that are rotated against a set of nails, which pull off the charge generated. The only practical use of this type of electricity, says Dibner, was the lightning rod developed by Benjamin Franklin.

Dibner feels a very personal connection with his collections. He like the "dirty" books—ones that have cut pages and that contain marginalia by readers, such as Michael Farady's *Experimental Researches in Electricity*, which is crammed with lecture notes added by his successor at the Royal Institution, John Tyndall. Although Leonardo towers above everyone else in Dibner's affections, he also has a special fondness for Franklin and for Samuel F. B. Morse, "the American Leonardo," who was a portrait painter as well as inventor of the telegraph. Of scientists with great moral and philosophical dimension, Einstein seems to be the end of the line. But you never know: Leonardo did not begin to get proper recognition until the 19th century, although he was "of such enormous vision and competence that it would take more than one lifetime just to understand what he did."

Although Dibner cannot see any contemporary scientists comparable in stature to the giants of yore, he is by no means bored with the present. "The proportion of original minds among scientists has never been as great as it is today." Dibner thinks the future holds great things. "Man was confined to the surface of the earth for 500 million years—in my lifetime he learned how to control and command the third dimension." He regards the moon walk as the third giant step in the broadening of humankind's horizons, the first two being printing and the discovery of the New World. Dibner is genuinely awed when he contemplates a book such as Copernicus's *De Revolutionibus*. This represents an advance whose impact did not begin to be felt until 60 years after it was printed. "Who was reading this book and what did they think the first 60 years?" asks Dibner. "Nobody today thinks the sun revolves around the earth but there was a time when only one person in the whole world knew the truth and that was Copernicus."

Dibner's imaginative connection with the past is evidenced by the reverence with which he shows the visitor a 14th-century bronze bell that used to hang in a Florentine monastery. Now it is in the Burndy library, mounted on a stand with low-friction bearings designed by Leonardo. It awes him to think that clangs of this very bell reverberated in the ears of so many creative geniuses of the past, such as Cellini, Michelangelo, Leonardo, and Columbus.

It was painful for Dibner to part with the treasures he has parceled out to other institutions, but these acts are in keeping with his sense of his part in the greater scheme of things, as exemplified in the Talmudic parable of the carob tree: "As my fathers planted for me before I was born, so do I plant for those who will come after me."—CONSTANCE HOLDEN

NRC Skirts Safety Issues in Export Approval

The Nuclear Regulatory Commission (NRC) recently approved the export of a controversial nuclear reactor to the Philippines, deciding as a matter of policy not to consider the detailed safety issues raised by several environmental groups.

The decision clears away the biggest obstacle to continued construction of the Westinghouse reactor near Manila, which environmentalists oppose because of the reactor's proximity to earthquake zones and a long-dormant volcano (*Science*, 31 August 1979). Several groups, including the Union of Concerned Scientists, the Natural Resources Defense Council, and the Center for Law and Social Policy, had petitioned the NRC to conduct a detailed review of the reactor's safety, encompassing design, siting, training of operators, and risks to U.S. servicemen stationed at nearby Navy and Air Force bases on Philippine territory.

A majority of three commissioners (out of five) decided that such a comprehensive review would be operationally awkward, too time-consuming, and too controversial. Commissioner Peter Bradford dissented, calling it "unsound law and bad policy" not to consider more carefully the reactor's impact on the military bases. "I do not mean by the dissent to say that . . . the plant will be unsafe," Bradford says. "The point is that the commission has declined to consider that question." The chairman of the commission, John Ahearne, abstained out of objection to the way the policy issue was taken up, but suggested he too favors a more detailed review.

The environmentalists have filed a lawsuit challenging the NRC's decision, but the chances of victory are seen as slight. The groups must prove that the commission violated federal laws, including the National Environmental Policy Act, the Nuclear Non-Proliferation Act, and the Atomic Energy Act, by electing not to conduct a comprehensive safety review. Most observers agree that the laws are ambiguous in this circumstance.

Renewed construction must also be approved by Philippine President Fer-

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dinand Marcos, who ordered last year that work cease until all safety issues had been resolved. At present, he is negotiating with Westinghouse for reactor safety improvements pegged to the accident at Three Mile Island. Westinghouse hopes to conclude these negotiations by the end of May.

The company says it is pleased by the NRC's decision to limit the scope of its review for this case and others. "Foreign purchasers of nuclear reactors, faced with . . . increased construction costs and long delays or licensing decisions" will go elsewhere, a spokesman says. "As a consequence, the United States is being viewed in some quarters as an unreliable and therefore undesirable source of nuclear reactors." Westinghouse's reactor sales have recently been entirely to other countries.

CIA Charter Proposals Die in Congress

Efforts in Congress to enact a comprehensive charter for the Central Intelligence Agency (CIA) are now considered dead, although congressmen could still enact restrictions on the agency's use of academics as spies.

The House and Senate Intelligence committees have given up for the indefinite future proposals that would have permitted, among other things, warrantless wiretapping and burglary of U.S. citizens at home and abroad, and the monitoring of sensitive U.S. business communications overseas. The committees also have set aside proposals to exempt the agency from provisions of the Freedom of Information Act and to forbid the disclosure of CIA contacts or sources on university campuses and elsewhere—provisions that aroused great concern among historians and journalists (*Science*, 29 February).

The Senate committee has substituted a less controversial proposal it expects the House to accept, which simply reduces the number of congressmen the CIA must inform when it conducts covert actions, such as its support for rebels in Afghanistan. The proposal attempts to tighten the reporting requirements by calling for "full and current" disclosure, instead of "timely" disclosure called for by present law. But the committees won White House support only by attaching a series of exemptions and qualifying phrases that may result in maintenance of the status quo.

The Senate committee asked its members to withhold amendments when the bill is considered on the Senate floor. But Senator Daniel Moynihan (D-N.Y.) plans to introduce an amendment that would bar secret CIA employment—on a full or part-time basis—of academics, journalists, and clergy. Moynihan's aides say he is motivated by the concerns of prominent news organizations and by members of the academic community, including Harvard President Derek Bok, that restrictions are needed to preserve the integrity of members of these professions working overseas. The Moynihan proposal is bitterly opposed by CIA Director Stansfield Turner, who says he does not want a flat prohibition written into law. Moynihan's aides give it less than a 50 percent chance of success, but say they will press their case anyway. The bill will probably be considered in June.

Proposals to Study Veterans Criticized

The National Research Council and a veterans group have concluded that political bias and scientific defects will cripple federal plans for studying Vietnam veterans exposed to the defoliant Agent Orange, unless the plans are reworked.

A panel of epidemiologists assembled by the research council found so many flaws in a study proposed by the Air Force that it suggested the study be turned over to someone else. "There would appear to be valid legal reasons for the Air Force to conduct a large-scale examination" of 1200 men who flew and serviced aircraft that sprayed the defoliant during Operation Ranch Hand, the panel said. "However, if this program is to be part of an attempt to provide a scientific basis for awarding compensation to [those with claims against the government] it is inappropriate for the Air Force or Department of Defense personnel to collect these data themselves."

The panel said its concern was reinforced by a discovery that the Air Force study was not statistically sensitive enough to detect medical problems of the type alleged by servicemen, including uncommon neurological, immunological, liver, and reproductive ailments. Birth defects, perhaps the veterans' major concern, would not be adequately assessed under the Air Force design, the research council notes. Too great an emphasis would be placed on mortality rates, which are not expected to reveal anything yet because of the latency of chronic disease. Neither the Air Force nor initial reviewers at the University of Texas School of Public Health were able to uncover these deficiencies.

The research council says the study might be salvaged if its time period is lengthened considerably, perhaps to 10 or 20 years, and if the sample population is expanded, perhaps by including Marines who were present on the ground beneath the spraying. Also, medical examinations should be focused more carefully on problems that veterans have claimed. Unless these changes are made, the study might be falsely negative, a finding that veterans would dismiss because the Air Force had conducted the study itself.

In a prepared response, the Air Force says it will implement changes as circumstances warrant, taking predictable umbrage at remarks about its credibility. But the agency leaves the question of ultimate sponsorship open, to be resolved by an interagency committee headed by Joan Bernstein, general counsel at the Department of Health and Human Services.

The National Veterans Task Force on Agent Orange has attacked on similar grounds a larger study proposed by the Veterans Administration (VA), and has filed a suit in federal court claiming the study would produce scientifically flawed results. Thus far, the VA has merely published study guidelines, and at present is deciding which of at least four study proposals it will accept. But the veterans group objects to the guidelines themselves, particularly because they call for participation in the study by VA personnel.

R. Jeffrey Smith