hurt the publishing operation, for instance, by several hundred thousand dollars.

The APA was founded a few months ago at the University of Maryland. It now claims 500 members in 30 states.

While APA concentrates on bread and butter concerns, general social, philosophical and political interests are covered by SESPA. This group was founded at the APS meeting in New York in January 1969 (SN: 2/22/69, p. 185) when it became clear that the establishment had successfully beaten back a move to change the APS constitution so the society could take political stands.

The presence of SESPA agitators is now an expected feature of APS meetings. At the Washington meeting technical sessions were invaded by pickets when members of military laboratories were scheduled to speak, and there was a march on the Pentagon though only a few dozen participated.

One of SESPA's aims is a kind of research worker's teetotalism. It sponsors a pledge not to participate in military research, and its ultimate hope is to persuade all the people covered by its title to subscribe. It was gaining adherents at the Washngton meeting, but not at any landslide rate. □

DRUG RECALL

Making identification easier

In the long-standing debate among politicians, drug manufacturers and physicians over generic versus brand-name drugs, the latter two groups have so far managed to defeat proposals that the Government finance the purchase of only low-cost generics under assistance programs. But the proponents of generic drugs may be making a small inroad as an offshoot of an effort to make the Food and Drug Administration's job easier.

Both Sen. Gaylord Nelson (D-Wis.) and Sen. Peter Dominick (R-Colo.) have proposed legislation to alter the current regulations for drug-labeling. Hearings before the Senate Health Subcommittee have been held, and a formal subcommittee version, combining features of each bill, is expected by the end of summer, drawing support—or at least the absence of active opposition—from all sides.

The immediate intent of the legislation is to deal with the problems the Food and Drug Administration has in recalling batches of drugs from the market when manufacturing imperfections are detected, or in removing a drug because it is judged to constitute a health hazard.

In 1969, the FDA had 700 drug-recall campaigns. Those drugs that are manufactured, packaged and distributed by the same company are relatively easy to track down on pharmacists' shelves. But often at least one of those three steps in drug marketing is handled by a second company, which may be the only one identified on the drug label seen by pharmacists. This complicates the recall process considerably.

To eliminate confusion and delay, the subcommittee will propose that each tablet or capsule be marked with a code identifying manufacturer, drug and dosage. Neither the Pharmaceutical Manufacturer Association nor the American Medical Association has voiced opposition to the idea, though there is concern over the cost small drug houses will have to face in purchasing coding machines. A member of Nelson's staff predicts, on the basis of discussions with industry representatives, that this will not be an insuperable problem.

The Nixon Administration supports the idea. Testifying before the subcommittee, Dr. Roger O. Egeberg, Assistant Secretary for Health and Scientific Affairs in the Department of Health, Education and Welfare said, "This critical process (of drug recall) could be both speeded and made more thorough if it were possible for the FDA to know at once by means of a code the exact source of a drug found on inspection to be substandard, misbranded or adulterated."

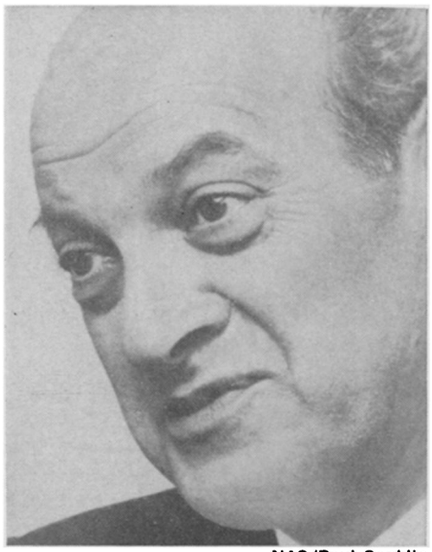
If the legislation passes, an index to the code stamped on capsules and tablets will be distributed to hospitals, pharmacists and to poison-control centers that need to know the exact identity of drugs in cases of overdosing.

The second aspect of drug identification comes up against the question of generic versus brand. It involves information that will go directly on the prescription label. Nelson's bill would require pharmacists to place the generic name of each drug on the prescription label; it makes no reference to brand names. Dominick wants the product's brand name included unless the prescribing physician specifically indicates it should be left off. In all likelihood, the new legislation will require generic identification and make brand-name labeling optional. Again, PMA and AMA representatives testifying before the subcommittee voiced no strong objections to the plan.

It is unlikely that these changes in drug-labeling will have any immediate impact on the question of whether patients, and the Government buying drugs for indigents, should purchase low-cost generics instead of more costly brand-name drugs. However, their long-range impact could be significant as individuals become more aware of their ability to compare products and prices by careful reading of the labels. □

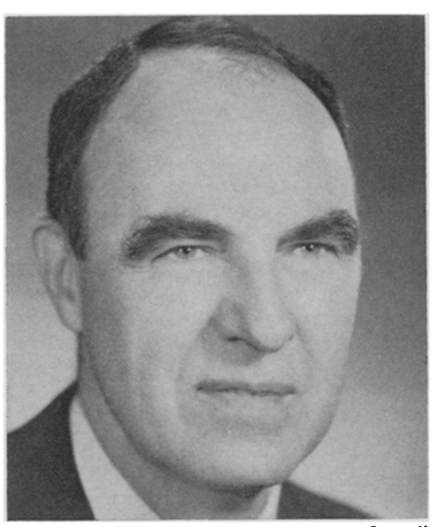
NAS

Confronting change



NAS/Paul Conklin

Handler: A need to restructure.



Cornell

Long: Create four sub-academies.

The National Academy of Sciences is an honorary association of 870 of the nation's most eminent scientists. Despite its statutory function as adviser to the Government, its annual business meetings are not noted for rising above routine internal housekeeping. One of their more important functions is the election of new members.

During the last four years, it is true, there has been a painful need to cope sensitively with the resolutions of Dr. William Shockley on race and intelligence, but that controversy has hardly penetrated to the heart of what the Academy is and what it does.

This year, though, members found themselves debating something more basic to the nature of the institution: a proposal for the most fundamental reorganization of the Academy since

George Ellery Hale brough about creation of the National Research Council in 1916. The Research Council is the chief operating arm of the Academy; it conducts most of its studies and writes its substantive reports. The parent Academy provides guidance and prestige.

The NAS, uniquely a private but official adviser to the Government, has always jealously guarded its scientific reputation. This has produced tendencies toward caution, passivity and resistance to precipitous change. Critics both within and without have called this a fault; supporters, a virtue.

In any case, when Dr. Philip Handler came on as NAS president last year (SN: 6/14/69, p. 579), he made no secret of his interest in examining the need for restructuring the organization's advisory apparatus. In the fall he appointed Dr. Franklin A. Long of Cornell University to head a committee to study the matter.

It was the Long committee's report, proposing a specific new structure, that last week stimulated the liveliest NAS business session in years. Many members took part in the discussion; most were critical. When it was all over, the report had been accepted in spirit if not in detail, the committee had been thanked for its effort and dismissed and Dr. Handler had been asked to appoint a new group to continue the examination until the next meeting.

Members in favor of reorganization in principle were not satisfied the Long proposal was the best way. They wanted more alternatives, more time to consider ramifications, and more evidence of thought and care on the part of the proposal's authors. Although the specific proposal was, in effect, rejected, the basic idea that some changes are called for to enable the Academy to better meet its obligations to society was not. There seems a good possibility a significant modification of the Academy structure will eventually come about.

"I think this shows there is a healthy yeast in the Academy," says NAS Home Secretary Merle Tuve of the Carnegie Institution of Washington. "The members are interested in changing with the times."

A number of problems have prompted the reorganization stirrings, but perhaps two are most important. One is the difficulty of applying the traditional disciplinary structure of the eight divisions of the NRC, such as physical sciences, biology and agriculture and engineering, to social problems—urban decay, over-population, environmental deterioration—that respect none of the neat, tidy boundaries of scientific fields.

Another was the need to re-examine the NAS' relationship with the semi-independent offspring, the National Academy of Engineering (SN: 6/8/68, p. 548), plus the need to respond to recent proposals for new and separate Academies. The NAS Board on Medicine, for instance, has recommended creation of a National Academy of Medicine. Dr. Handler is particularly concerned about the threat of a proliferation of Academies. "I think it would be a very serious disservice to science to have this fragmentation," he says.

The Long committee's suggested answer to the first of these two problems was to restructure the NRC, in part, along problem-oriented lines. Replacing the present disciplinary divisions, it suggested some 10 new units: health, environment, transportation, defense, scientific personnel, agriculture, urban, communications, space and materials standards, as examples.

The most controversial part of the proposal was addressed to the second problem. The group proposed creating four new sub-academies, each under the parent NAS: Physical sciences and mathematics, engineering, health sciences and life and social sciences. In due course, the social and behavioral sciences would be split off from the life sciences to form a fifth such body.

Each of these sub-academies would be headed by a chairman who would also be a vice president of the over-all NAS. The purpose of this part of the plan, says Dr. Handler, was to obviate the need for separate independent academies.

It was all rather mind-boggling to members of the 107-year-old NAS, not accustomed to rapid institutional change. Many questions and problems made the plan unacceptable in that form. But important groundwork was laid.

"It was too difficult to tell all the ramifications of such a fundamental restructuring," says NAS member Dr. Ernst Cloos of Johns Hopkins University. "But the Academy can't go forever without change." □

CHEMICAL ENGINEERING

Mining the Great Salt Lake

Hal Rumel

Great Salt Lake: Mineral harvest.

Utah's Great Salt Lake is a remnant of what was once a vast, inland sea that covered 19,000 square miles. After thousands of years, geological changes and a withering sun have left a 2,150-square-mile lake in the northwestern part of the state. Also left were tremendous mineral resources at so high a concentration in the water that relatively little energy is needed to precipitate them out.

Mining companies so far have concentrated on the common sodium chloride in the lake, leaving largely untouched the lake's vast reserve of sodium and potassium sulfate, magnesium chloride and lithium chloride. This will have changed by year's end, when the first full-scale effort to extract these other minerals begins.

A sprawling complex of evaporation ponds, processing plants, pumping stations and canals already in place will begin then to process 10 million tons of slurry a year to extract 150,000 tons of sodium sulfate, 240,000 tons of potassium sulfate and 600,000 tons of magnesium chloride a year.

These will constitute sizeable chunks of United States production of these minerals. For example, the sodium sulfate will equal about 10 percent of present United States production while the potassium sulfate will exceed the present annual production of that mineral by 1,000 tons.

But for chemical and business reasons, the mineral responsible for the whole operation—lithium chloride—will not be produced until the mid-1970's. Lithium Corp. of America got into the project because of the lithium in the lake. But before they can get to it, the other minerals, which crystallize ahead of it, must be taken out first. Studies in 1963, showed that this was economically feasible. By 1967, a pilot plant had tested the idea, and Lithium Corp. and Salzdetfurth, A. G. of Hannover, West Germany, a major salt and potash producer, formed the jointly owned Great Salt Lake Minerals & Chemicals Corp. Now seven years and almost $30 million later, the facility is ready to go on stream with sodium and potassium sulfate in October and magnesium chloride in late 1971.

Potassium sulfate, of which there is an estimated 170 million tons, is used in medicine, making potash fertilizer, glass manufacture and artificial