H. Panofsky, director of the Stanford Linear Accelerator; Emanuel R. Piore, I.B.M. vice president for research and engineering; Charles Townes, provost, M.I.T.; Eugene Wigner, professor of physics, Princeton; and C. N. Yang, professor of theoretical physics, Princeton. With the exception of Wigner and Abelson, the panel agreed that high-energy physics represented a frontier of science that deserved generous support. Wigner explained, "I entertain no doubt that high energy phenomena are worth exploring. . . . If there is a question in my mind, it concerns the rate of exploration, that is, whether or not the proposed rate is so fast that it entails a less effective use of the expenditures and scientific manpower than could be attained in other areas." Abelson offered the view that in terms of its potential for socially useful developments, high-energy physics was receiving a highly disproportionate share of the support made available to science. It should be supported, he told the committee, primarily because of its importance to science and philosophical values, but he said he would place it behind materials sciences, unmanned space exploration, and molecular biology in priority for support.

An uninitiated visitor to the hearing room would easily have obtained the impression that the committee was weighing whether or not to continue with massive support for high-energy physics. That's because a congressional hearing, by the nature of its physical layout, resembles a judicial proceeding, with the participants roughly occupying the roles of judges and witnesses. In fact, however, a congressional hearing is more in the nature of a rehearsed dramatic presentation than a judicial proceeding. It was clear from the outset that the committee—long a friend and advocate of high-energy research—was not the least bit inclined to cut back in this field. When Piore asked the committee if it was going to permit high-energy physics to stagnate, he gave the answer himself by saying, "Fortunately, we are sufficiently affluent that we don't have to even ask that question." None of the JCAE members put it so bluntly, but in questioning Donald F. Hornig, the White House science adviser, they provided a glimpse of what was bothering them about the costs of high-energy physics. It wasn't so much that the field itself was becoming increasingly expensive, they indicated; rather, it was that, while the high-energy budget was growing, the executive branch had consistently held the AEC to an annual budget of around $2.5 billion. As a consequence, severe budgetary pressures were restricting nuclear development programs in space and power generation. Holifield said he thought it might be useful to break up the annual legislation into separate titles that would permit high-energy physics to expand without putting pressure on other AEC programs. Hornig agreed that high-energy physics should be "considered in the light of its own national needs," and, though he wasn't prepared to make a commitment, he seemed responsive to the committee's concern. Meanwhile, the issues of location and management of the new accelerator remain unresolved, and the maneuvering goes on. The JCAE, which will inevitably play a leading role in settling those issues, has decreed that it wants a final site decision for the fiscal 1967 budget, which means that a solution will have to be worked out within a year or so if work on the accelerator is to proceed.

—D. S. GREENBERG

Veterans' Medicine: Imbroglio over Closing of VA Facilities Is Partly Clash of Old and New

Of the current dispute between Congress and the administration over the planned closing of a number of Veterans Administration facilities, one might say what Chesterton is supposed to have remarked when he saw two housemaids screaming at each other from houses on opposite sides of the street: "They'll never agree, they're arguing from different premises."

On 13 January the VA announced plans to close 11 "marginal" hospitals, consolidate 17 regional offices with larger ones, and shut down four domiciliary homes. The agency release said, "The reorganization of these functions is in consonance with the President's appeal to Government departments and agencies to increase operating efficiency and reduce spending."

These are unexceptionable aims, but coming on top of closing orders for several military installations and on even shorter notice, the result was an upsurge of congressional choler.

The protests centered on the closing of hospitals and domiciliaries. The legislators lamented the effect the closing would have on VA employees and on the towns, most of them small, where the facilities were located, but most of all they deplored the effect on the well-being and convenience of the veterans.

Congress has been very kindly disposed to the VA over the years, and this amicable history seems to have made congressional critics all the more irritable today.

(The VA operates a $5.6-billion-a-year program, with nearly $4 billion going into veterans pensions and other types of compensation. The agency spends more than $1 billion a year on medical care and is the giant among federal agencies providing medical treatment and hospital care, maintaining 120,000 beds as compared to 40,000 in Defense Department hospitals. Since World War II the VA has assumed an important role in medical education, and in recent years it has developed a significant program in medical research.)

The seeds of the present dispute were sown soon after World War II when the VA adopted the standards of "big medicine" as the standard of treatment for its patients. This meant big hospitals in big cities, and the new policy guaranteed an eventual conflict with the older VA pattern of smaller hospitals widely distributed, which was established after World War I.

Before that war, veterans were cared for in federal and state old soldiers' homes, with such medical services as were available not achieving very high standards.

After World War I, federal activities in behalf of veterans were consolidated into one agency, then called the Veterans Bureau, and a system of federal veterans hospitals was established. This was done primarily by taking over military hospitals, many of them in remote places. The location of the VA hospitals was very often determined by pressure on the agency from influential legislators and veterans' organizations.

Toward the end of World War II it became clear that, with its depleted staff, inadequate plant, and outmoded policies, the VA medical system was unequal to the demands that the return of more than 15 million veterans would inevitably place on it.

The transformation of the old, veterans' "facilities"—they weren't even called hospitals—into a system of hospitals, a number of which compare favorably with the best teaching hospitals, was a remarkable accomplishment carried out in a remarkably brief time.

General Omar Bradley presided over the transformation as VA administrator in the early postwar years. He brought along with him as medical director Major General Paul R. Hawley, who had been Army chief surgeon in the European theater of operations. They soon enlisted a number of well-known medical men from outside the agency, including, as director of research and education, Dr. Paul B. Magnuson from Northwestern University, a vocal advocate of reforming the VA medical service and a man with specific ideas about how to do it.

A 1946 act took the VA physicians, dentists, and nurses from under the Civil Service law and thus removed what was considered an inhibiting factor from the standpoint both of quality of staff and relations between VA hospitals and medical schools. Provision was made for the hiring of consultants on terms attractive to top men.

A Department of Medicine and Surgery was created within the VA, and this body of professionals served as something of a counterweight to political influence inside and outside the agency. The department has certainly not won all its battles, but clinicians and researchers have done infinitely more to shape VA policy for the medical service than they did before World War II.

Magnuson and his allies argued successfully that new VA hospitals should be built near established medical schools. The ideal was to make every VA hospital a teaching hospital, drawing interns and residents to its staff and profiting from the availability of top-drawer consultants. A strong effort was made to involve medical school deans and senior faculty members in the formulation of VA medical policy at the national and local-hospital level.

The VA's research program was formally authorized by Congress only in 1958, but it has been a part of the postwar grand design from the start, on the grounds that medical education and research are inseparable. Funds for research, however, have risen fairly sharply in recent years, climbing from $5.4 million in 1956 to about $32 million last year. About $40 million is asked for research by the VA in its fiscal 1966 budget request.

Some research had been carried on from the time a unified veterans' agency was established in 1919, but it was performed by medical school faculty members under contract to the agency. In 1955 a beginning was made in supplanting the contract program with intramural research, and the next year the contract program was discontinued.

VA research is predominantly clinical research which will ultimately be useful in treating VA patients. Emphasis is given problems relevant to the VA's patients, such as aging and alcoholism. Research in basic science is carried on where such research is pertinent. The VA is proud of its "coordinated studies," in which VA investigators, both clinicians and nonphysician researchers, in several places attack a specific problem. Central coordination, uniform records, and a great number of patients help make VA researchers particularly effective in such projects. A cooperative study of the chemotherapy of tuberculosis, begun in 1946 and still in progress, is one of the most productive and best known of the cooperative studies.

The VA's commitment to an alliance with the medical schools, therefore, has exerted a strong influence on planning for the VA medical service since the war. Another ingredient of the present controversy was establishment during the Eisenhower administration of a 125,000-bed ceiling for the VA system. At about the same time a long-range modernization and repair program was laid out. About $100 million a year has been spent on it. The VA went ahead on the principle that hospitals should be at least as large as 500 beds and should be affiliated with medical schools. It has been possible to stay within the 125,000-bed limit and yet avoid closing many small, remote hospitals.

The present squeeze seems to have developed because the VA sees a need for new beds in centers of population growth and, at the same time, is feeling the effects of the economy drive mounted by President Johnson. Every federal agency was expected to do its bit, and the VA apparently came up with the closings as its contributions.

Reaction to the announcement erupted first in the Senate, where Senator Mike Mansfield (D–Mont.), the heroically mild-mannered majority leader, stepped out of character and bitterly protested the closing of the VA hospital in Miles City in his own state. Setting the tone for many complaints to savings cited by the VA and said, "I follow, Mansfield alluded to alleged do not know why [the VA] places so much stress on computers and not enough stress on human needs."

In speeches on the floor and entries in the Appendix of the *Congressional Record* members of the House and Senate have taken issue with VA estimates of savings, and have argued that, with a peak load of business for VA hospitals estimated for 1980 as the veterans grow older, this is no time to be closing hospitals. They have accused the VA of working an undue hardship on

Veterans Administration Medical Service

At the close of the 1964 fiscal year the VA operated a total of 168 hospitals with about 121,000 beds. There were 124 general hospitals, 39 psychiatric hospitals, and 5 tuberculosis hospitals.

The number of patients treated in that fiscal year totaled 763,035, with 738,583 treated in VA hospitals and the rest in non-VA facilities, but with costs paid by the agency.

An annual census of patients taken on 31 October 1963 showed that, of about 112,700 patients listed as under VA auspices on that day, about 30 percent were veterans receiving care for service-connected disabilities and 10 percent were veterans with service-connected disabilities who were receiving care for disabilities unconnected with military service. They are eligible for such care so long as beds are available. The other 60 percent of the patients were receiving care for non-service-connected disabilities. Veterans are eligible for such care if a bed is available and they sign an affidavit certifying inability to pay for hospitalization. More than four-fifths of the patients in the first category are under psychiatric care.

Among the more than 136,316 full-time-equivalent employees of the VA medical program were some 5034 physicians employed full time in clinical and administrative jobs, 917 physicians employed part-time, 2555 residents, 152 interns, and about 10,000 consultants and attending physicians.

some veterans and their families by making the sick travel up to 500 miles. They have noted that, in many areas, the VA facility is not only an economic mainstay for a small community but a prop for high-quality medical service in a whole region. Republican legislators in particular have suggested that President Johnson is contradicting his aims for a great society by undercutting the economy of some small towns and, in the case of the domiciliaries, turning some pathetic old men out on the street to become welfare cases.

The issue has become highly charged emotionally and politically, and the veterans' organizations appear to be doing the work at the local level which is likely to raise the voltage.

The conflict between grassroots sentiment and the advantages of advanced medical technology is really not easy to resolve on a rational, factual basis. A patient needing open-heart surgery or a kidney transplant is clearly going to prefer a modern medical center to a 200-bed hospital at a decommissioned cavalry post on the old frontier. But it can be argued that there are several levels of medicine and that the smaller hospital, even in a remote area, can provide adequate care and perhaps a better morale environment, with family near and enthusiastic volunteer services not found in some big, impersonal hospitals.

Hearings on the dispute are now in progress in the House before the Committee on Veterans' Affairs, which is chaired by Olin E. Teague (D–Tex.), and in the Senate before the Labor and Public Welfare Committee's subcommittee on veterans' affairs, headed by Senator Ralph W. Yarborough (D–Tex.)

As things stand, there are decided limits on what Congress can do to prevent the closings. The law gives the President, and through him the VA, authority to open and close facilities without specific congressional action.

Congress did tie the VA's hands on the closings until 1 May by attaching a rider to an Agriculture appropriations bill forbidding the agency to use funds to effect the transfers and pay other costs involved in the closings. This, however, is viewed as only a delaying tactic.

To exert greater control, Congress could change the law to require a full authorization and appropriations process for all VA construction and closing plans, as is the case for some other agencies. This would increase the likelihood that the program might in the future again become the kind of political Christmas pie it was between the wars.

While the issue has caused an emotional reaction in Congress, House Veterans' Affairs Committee chairman Teague is not the sort to get very emotional about it. Teague, a World War II veteran with an impressive combat record as an infantryman, and a congressman since 1946, is thoroughly familiar with the VA's ways and objectives and has not in the past bowed to pressure from his colleagues or the veterans' organizations. Teague has said he wants all the evidence to be heard. Hearings in the House will run into April. Much the same thing seems to be happening on the Senate side, and it appears that there will be no congressional action in hot haste. In the last 2 weeks, the issue has been much less frequently mentioned in the pages of the *Congressional Record*, which is a crude barometer of the congressional temper.

Aside from the direct effort to stop the closings, the campaign may have some longer-range objectives.

First, the veterans' organizations and their allies in Congress may hope to deter, by the furor they create, other closings which may be under consideration for the future. Second, there could be a larger objective, a matter which lies near the heart of veterans politics. Veterans' organizations would deplore any fragmentation of the functions of the VA, with which they have a comfortable relationship, or the intrusion of any other federal authority into veterans' affairs .The Bureau of the Budget, which deputized for the White House in the economy drive, has been cast as the villain in the piece. Senator Mansfield and others laid the blame at the door of the Budget Bureau, and, after the initial outburst, criticism of the VA itself was noticeably tempered.

If any overall planning on federal medical services is being done it is being done in the Bureau of the Budget. And the proposed closing, announced on 19 January, of seven Public Health Service hospitals and the transfer of some Merchant Marine patients to veterans' hospitals seem to have alarmed those who suspect the Bureau of the Budget of interest in a kind of consolidation and coordination of federal medical services which would compromise VA autonomy.—JOHN WALSH

Announcements

The American Medical Association's Education and Research Foundation has announced plans to open its **Institute for Biomedical Research** 1 July. The laboratory and animal research facilities will be located in an addition under construction on the AMA building in Chicago. Personnel will be nominated by a committee of scientific advisers headed by Maurice B. Visscher, chairman of the physiology department at the University of Minnesota. Roy E. Ritts, Jr., is the Institute's director.

Meeting Notes

Papers on all areas of **applied mechanics** are being solicited for presentation at the 1965 West Coast conference, sponsored by the American Society of Mechanical Engineers. The meeting will be held at U.C.L.A. 30 August to 1 September. Deadline for receipt of complete manuscripts: *1 April.* (P. M. Naghdi, Division of Applied Mechanics, University of California, Berkeley)

Grants, Fellowships, and Awards

The school of environmental and planetary sciences of the University of Miami is inviting applications for all-expense-paid fellowships for its course in **environmental and planetary sciences**, scheduled 21 June to 30 July. The course will be sponsored by the North Atlantic Treaty Organization and the National Aeronautics and Space Administration. Emphasis will be on geophysical and fluid dynamics and advanced concepts in electromagnetic sensing. Field trips will include visits to the Kennedy Space Center and to the volcano Irazu, in Costa Rica. The course will carry 6 hours of credit; recipients of the grants must register for credit. Applicants must have completed the equivalent of 3 years' college training in mathematics through advanced calculus, and in physical sciences. Letters of application should include academic transcripts and a description of the applicant's professional goals. Letters of recommendation from three of the applicant's professors are also required. Deadline for receipt of applications: *26 April.* (S. F. Singer, School of Environmental and Planetary Sciences, University of Miami, Coral Gables 33124)