though it is hard put to explain away the fact that the drug industry has had profits approximately double the average for other industries.

These profits, Kefauver has concluded, come from a tight control of the market. The control rests, he says, on (i) the patent laws; (ii) large expenditures for advertising and promotion; and (iii) the success of the major firms in persuading physicians to prescribe drugs by trade rather than by generic names.

At last week's hearings, a number of expert witnesses gave their views on the senator's proposed revision of the patent laws. Under the existing system, which dates back to Thomas Jefferson, the holder of a patent retains his rights for 17 years. The senator proposes that in the case of drugs alone, after 3 years, the patent holder should be required to give any qualified manufacturer the right to produce the drug in return for a royalty of up to 8 percent. The result of this revision, he argues, would be lower prices, since competition would be thrown wide open, and there would therefore be incentive to produce as cheaply as possible.

Opponents of the Kefauver proposal responded at the hearing with the contention that the guarantee of 17 years of patent protection has made it possible for major firms to undertake costly research projects. The assurance that a marketable discovery would be theirs for that duration, to sell or license at their discretion, has been the incentive to maintain research programs, it was argued.

Whether or not this is the case could amply occupy a team of researchers for quite some time, but there was no element of uncertainty in most of the views expressed at the hearing. The American Institute of Chemists warned that federal regulation would delay the discovery of remedies for heart disease and cancer and added that the research laboratories of pharmaceutical firms are the "last havens" for professional chemists seeking solutions to numerous maladies. This last view no doubt comes as a surprise to chemists at universities, government laboratories, insitutes, and other nonindustrial research facilities. The American Patent Law Association brought in the East-West conflict and warned that the proposed patent provision might seriously affect our chances for survival, and the American Association of Research Directors, representing research officials in 100 firms in the New York area, said that Congress should be seeking ways to make the drug industry more profitable.

In the course of his lengthy inquiry into the drug industry, Kefauver and his antitrust and monopoly subcommittee have come to be regarded by the industry as economic assassins, while he and his committee staff return the compliment by looking upon the industry as a heartless profit seeker. Though most congressional investigations generate some acrimony, the inquiry into the drug industry has been marked by unusual bitterness, and one result has been that more heat than light frequently emanates from the committee's hearings.

The temperature is likely to go up markedly in the coming months as the committee goes into the bill that it says will cure the drug industry of ills the drug industry says it does not have. The industry, which cannot hold any claim to reticence during the course of the hearings, said through a spokesman recently that it is now ready to fight back. It can be expected to hoist a publicity barrage, which, along with the expertly handled publicity efforts of the Kefauver committee, will make it difficult to keep in view the basic issue at this point in the drug inquiry; namely: What is the relationship between the patent system and the economics of research and how would that relationship be affected by the senator's proposed revision?—D.S.G.

Space Cooperation: U.S. Outlines Plan for United Nations Role

The Administration this week outlined the program that it will ask the United Nations to adopt to assure the peaceful use of outer space. The program, though dealing only with space, has broad implications for arms control and inspection, and key parts are unlikely to draw a favorable response from the Soviet Union.

Briefly, it calls for international cooperation in the use of outer space for communications and the study and control of weather; and agreement that the U.N. Charter applies to outer space and that space and heavenly bodies are not subject to claims of national sovereignty. In addition, it would establish a specialized space unit in the U.N. Secretariat and an international system for the registration of all objects launched into space.

In the past, the Soviet Union has shown little interest in using the U.N. as a means of developing an international space control program. Nearly 2 years ago, the General Assembly established a permanent committee to study the peaceful uses of space. The committee has been inactive almost from the beginning, principally, American sources claim, because of lack of Soviet cooperation.

The latest U.S. plan, with its proposals for registering space launchings and cooperation in development of the weather satellite, is not likely to inspire Soviet cooperation. The Soviets have taken great pains to conceal their space efforts and have shown no tendency in the past to contribute to the diminishment of that concealment. We call it a weather satellite, but it reminds them of the U-2.

Pay for Government Scientists

The Administration will ask Congress next year for authority to pay more scientists and engineers higher salaries than currently allowed by the civil service regulations. Harold Brown, director of defense research and engineering announced last week that the Defense Department would ask for authority to add to the 603 scientific employees carried in the "supergrade" civil service categories, who are now paid up to $18,500 a year. He said that in addition to asking authority to carry more scientists in the supergrade category, the Defense Department would ask for a raise in the top salary to $21,000, the level currently allowed in the Space Agency.

Meanwhile, the Civil Service Commission and Budget Bureau have drafted a proposal for a separate pay scale for scientists and other professional employees throughout the government, intended to make salaries for government jobs in these categories more nearly competitive with the salaries offered by private industry. At the close of the last session the chairman of the House Science Committee introduced a proposal to establish such a special category for scientists, but jurisdiction over the bill goes to the Post Office and Civil Service Committee, where the

pressure for raises for the numerous and well-organized postal workers is far stronger than that for scientific and professional employees.

For several years there has been a good deal of talk of the need for the government to pay higher salaries to its key employees, but politically it is very difficult to get a bill through Congress, and no real effort for a general revision of the upper pay scales has ever been made. Attempting to raise the pay scales for the top grades of federal employees runs into both the distaste of many Congressmen to authorize salaries as high as their own ($22,500 a year), and the difficulty, close to a political impossibility, of giving raises to well-paid employees without giving substantial raises to the lower grades. Such a general raise would cost a great deal of money, probably more than Congress would approve even if the Administration recommended it. Behind these difficulties is the tendency among many Congressmen to assume that it would be virtually immoral to pay a man as good a salary for spending the taxpayers' money as he would be paid to work in a private corporation to help produce the national wealth from which the taxes are derived.

Ultrahigh-Frequency Television

The Federal Communications Commission began operating an experimental ultrahigh frequency television station in New York this week. Because of the high buildings, New York is considered the most difficult place in the nation for a UHF station to operate effectively. The commission hopes to show that even under these adverse conditions UHF can provide service as good as that provided by the very-high frequency band. The 12 VHF channels are now almost fully used; the 69 UHF channels are for the most part unused. Large-scale development of educational and public-service television depends heavily on winning wider acceptance for UHF, and so opening up the spectrum of unused channels. In this connection, FCC chairman Newton Minow appealed to organizations interested in educational TV to organize a campaign in support of an FCC proposal to require manufacturers to equip all sets for UHF as well as VHF reception. The proposal got nowhere in Congress last session.

Announcements

The Department of Health, Education, and Welfare has established a citizens **advisory committee to the Food and Drug Administration**. The 16-member committee, headed by political scientist George Y. Harvey, of the University of Missouri, will evaluate the amount and type of protection the FDA should furnish consumers for foods, drugs, therapeutic devices, cosmetics, and household chemical products; and the adequacy of present resources and changes needed to provide this protection.

A continuous **air-pollution monitoring program**, established by the U.S. Public Health Service, is being developed in eight cities—Chicago, Cincinnati, Detroit, Los Angeles, New Orleans, Philadelphia, San Francisco, and Washington, D.C. Special air-monitoring equipment, built by the PHS at a cost of $300,000, will automatically measure and analyze levels of sulfur dioxide, nitric oxide, nitrogen dioxide, carbon monoxide, ozone, and total hydrocarbons and oxidants. The new stations, operated by specially trained employees of the participating cities, will also provide information on particulate pollutant concentrations, pollutants washed out of the atmosphere by rainfall, and measurements of local wind turbulence.

A **national rehabilitation research-training center** has been established at New York University by the U.S. Public Health Service. A $390,000 installment has been granted by the PHS Office of Vocational Rehabilitation to cover the current academic year. In the future the office will supply an annual grant of $500,000 to the university's Institute of Physical Medicine and Rehabilitation.

Copies of reports presented at the conference on curricula for **undergraduate majors in physics** (Denver, 13 Aug.–2 Sept.) have been made available. (Byron E. Cohn, University of Denver, Denver 10, Colo.)

Researchers with experience in **seawater supply systems** are invited to submit papers for possible inclusion in a forthcoming publication sponsored by the Sandy Hook Marine Laboratory. Contributors should describe their experiences in solving problems of design and operation of experimental marine aquaria, rather than give comprehensive accounts of complete systems. Deadline: *10 January 1962*. (John Clark, Sandy Hook Marine Laboratory, P.O. Box 428, Highlands, N.J.)

The first in a series of three 90-minute programs on **man's scientific frontiers in the space age** will be presented on NBC-TV on 24 November at 9 P.M. (EST). The biography of a hypothetical manned orbital flight, "Crossing the Threshold," will be based on material gathered from previous test or manned projectile flights. The program will emphasize the human side of the flight and its effect on participants, rather than the purely technical aspects.

The second program in the series, "At the Threshold," will examine the cost, feasibility, and timetable of America's space projects, including exploration of the moon.

A third program, "Other Thresholds," will explore and compare some additional scientific plans, objectives, and accomplishments in the United States.

Translation of three Soviet **journals** (*Problems of Hematology and Blood Transfusion; Journal of Microbiology, Epidemiology, and Immunobiology*; and *Problems of Virology*) has been discontinued by the National Library of Medicine's Scientific Translation Program. Commercial editions of these journals will be published independently by Pergamon Press, Headington Hill Hall, Oxford, England; and Royer and Roger, 1000 Vermont Ave., NW, Washington 5, D.C.

Courses

The University of Wisconsin's **Engineering Refresher Institutes** will hold 2-day courses in civil engineering (9–10 Nov.), mechanical engineering (7–8 Dec.), and electrical engineering (11–12 Jan. 1962). The entire refresher series will be repeated in Milwaukee during the 1962 February to June semester. Initial registration for each course is $25; any additional 2-day course in the series is $15. (Cass F. Hurc, Engineering Refresher Institutes, University of Wisconsin, Madison)