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NEWS AND COMMENT

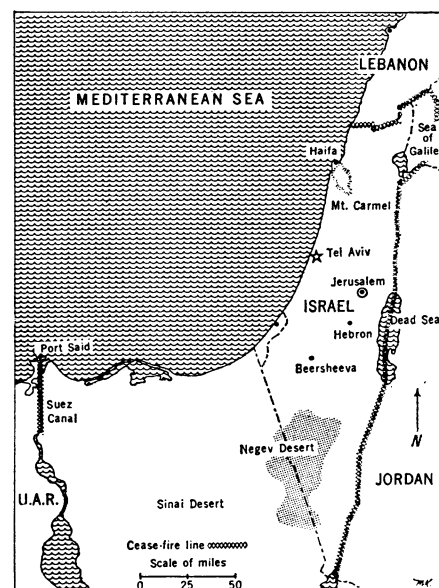
ISRAEL

Research and Education Booming in a Nation at War

Israel. I was with several Israelis during a tour in mid-March of scientific and educational institutions here when a news broadcast reported the downing of four Egyptian MIG's. My companions were exultant. Then one of them gasped and said, "Damn it, I forgot to take the chicken out of the freezer." On another occasion, I visited an American physicist who went to work a few months ago in a laboratory in Jerusalem. "Why?" I asked. He explained that he is Jewish and has long been interested in Israel. He continued, "From the professional point of view, it's a small country and you can take an idea of your own and really carry it through. Besides," he said, "I really think my wife and children are safer here than they were back in Washington, D.C. The city streets are absolutely safe at any hour." Having heard that at least half of all research and development in Israel is now in the

military area, I asked him whether the Israelis were interested in his extensive military research experience in the United States. "No," he said, "military research here is very self-contained, and they're very security conscious. I wouldn't mind, but they're not interested in me."

The two encounters were a bit jarring, but coming as they did early in a 2-week tour, were appropriate introductions to the numerous incongruities of this tiny, peculiar, and haunted country. Is Israel a land of scientific strength? The answer is that it is strong for its size, but it is a very small country. With a population of 2.8 million, it turns out more scientific papers than all of Latin America or Africa. Figures compiled in 1964 show that it roughly ranked with Great Britain and Japan in the number of scientists and engineers per 10,000 of population—10.7 (which is less than half the figures for



the U.S. and Sweden). With 1/1400 of the world's population, it has been calculated, Israel produces 1/200 of the scientific papers. Extraordinary. But the fact is that all of Israel contains about 3500 scientists and engineers. They are heavily represented among Jews of European, Russian, and American origin, but not so often among the so-called "Oriental" Jews, who now comprise over half the population, which somewhat explains why there are not even more scientists and engineers in Israel's population.

Small, but rendered strong for its size through its use of scientific skills—well, yes and no. After more than a decade of talk and planning about "science-based" industry, Israel's

scientific prowess still shows up more in her scientifically managed citrus groves and plastic-sheeted vegetable fields than in her industrial plants. Israel's laboratories are great exporters of scientific papers, but rarely have these given Israel any concrete return beyond funds to produce more scientific papers. That is what they are saying throughout Israel's scientific enterprise now, and as a consequence there is a frantic rush toward applied research, with the government ready to pay half the costs of virtually any research conducted in an industrial enterprise. One suspects that eventually things will come out all right. The Israelis are clever and have relatively ample capital. But the results so far are not especially striking.

For example, a lot of individual initiative followed by considerable government support has produced a rapid expansion of the civilian electronics industry—to the point where it now employs nearly 1000 persons. But most of the production involves the assemblage of imported components, often under arrangement with one or another American firm. And though the Israelis are turning out several well-received scientific research instruments, sales to government currently account for half the revenue. The military side of the picture is said to be large, but is completely closed off to outsiders. As one electronics executive put it, "There is a very sophisticated electronic war going on in the Middle East and we understandably prefer to keep quiet about it."

Research Funds from U.S.

It is interesting to learn that, for many years, most of the work embodied in Israeli-produced scientific papers was paid for by agencies of the U.S. Government, the annual sum sometimes running as high as \$8 million. Almost all of this was in Israeli currency that the U.S. held from sales of surplus food under Public Law 480. But now that the fund is nearly exhausted—it has been temporarily replenished to the end of 1972 by Israel's making an advance payment on dollar loans—what is the long-range alternative? Many possibilities are being explored and cultivated, but prominent among them is West Germany, whose philanthropic foundations, especially the Volkswagen Foundation, are currently providing several million dollars a year to Israeli scientists, with reliable signs of more to

come. Researchers and administrators at the Technion of Haifa—Israel's version of M.I.T.—are despairingly trying to decipher a recent decision of their board which bars any funds that can be traced to the Nazi period. Other institutions see no issue of principle and are busying themselves with further explorations of the West German grant potential. The search is, of course, international: Hebrew University of Jerusalem, a huge, modern, and highly diversified institution despite a name that suggests a theological seminary, keeps a man in Washington to seek out American funds, and is probably unique among foreign universities in this regard. It is interesting to learn also that, since the Six-day War, immigration to Israel from the U.S. and Canada has sharply increased—4000 in 1968, 6000 last year, and, at the present rate, perhaps 10,000 this year, with "academicians" comprising about 30 percent of the total. The Weizmann Institute of Science reports an eightfold increase in job inquiries from the U.S. over the past few years, reflecting in part, no doubt, the financial woes of American science but also the appeal of the Jewish homeland in a time of difficulty. Israeli tourism is currently flourishing to so great an extent that it is extremely difficult to get a hotel room on short notice. The principal menace to the visitor is not the war, which goes on on faraway borders, or guerrilla acts, which are quite infrequent; rather it is the automobile, with which the Israelis regularly massacre each other at a rate that exceeds the present toll of war. (A recent week produced 13 dead and 92 severely injured on the highways, figures considerably in excess of the battlefield figures.) Finally, it is worth noting that military research in Israel is predicated on a concept that sounds strange to American ears. As explained, in an interview, by the Deputy Chief Scientist of the Defense Ministry, Brigadier General Itzhak Ya'acov, an Israeli-trained mechanical engineer with a master's degree in management from M.I.T., "What we are constantly looking for are reasons *not* to do research. We're too small to go chasing after problems that have been solved someplace else or that really don't concern our needs."

Now to proceed to some matters in greater depth.

Embattled as it is, deeply in debt in its international accounts, and with close to 25 percent of its gross na-

tional product going to defense (as compared with about 8 percent in the U.S.), Israel is nevertheless building and expanding universities and research facilities with a fervor that one might have thought would be reserved for military fortifications. The reason, of course, is that, with the Middle East population odds at 2.8 million to 40 million, Israel's seven main centers of education and research are integral to the national security, not because they are involved in military work—there is very little of that so far on the Israeli academic scene, though it is increasing; rather, the Israelis believe they can make up in wit what they lack in numbers, and therefore the universities *are* part of the system of fortifications.

Big League Institutions

Many of these seven are big league institutions in terms of size, equipment, and scope and quality of academic and research programs. Architecturally, many of them compare favorably with the best in international academic modern. The Technion, with 45 buildings on a 300-acre site on Mount Carmel, overlooking the port city of Haifa, has an academic staff of over 1000; there are about 4000 undergraduates, nearly 1700 master's and doctoral degree students, plus some 400 other students in a Junior Technical College and a National School for Senior Technicians. There is talk of a national building freeze to release workmen and materials for military purposes, especially for the construction of civilian bomb shelters, which are being built throughout the country. But work on academic buildings is still going on at the Technion and elsewhere. Merger talks are being held between the Technion and the newly established University of Haifa, a municipally founded institution housed in a group of striking buildings atop Mount Carmel. And there is also talk of merging with a medical school that last year opened in Haifa. Hebrew University, with a current enrollment of 15,000 and a sprawling, modern campus, is also renovating and expanding its old Mount Scopus campus, which remained Israeli-held but cut off from use prior to the complete Israeli takeover of Jerusalem in the 1967 war. Tel Aviv University, founded as a municipal college in 1956, now has 1700 faculty members and 10,000 students and is planning to double its enrollment before 1980. The Weizmann Institute—most widely renowned of

Israel's research and educational institutions, sometimes to the annoyance of the others, which feel they suffer a publicity, not a quality, gap—is going ahead with plans for expansion under its newly appointed president, Albert B. Sabin, of polio vaccine fame, who in January left the University of Cincinnati for permanent residence in Israel. The Institute's budget is currently \$12 million a year (\$1.2 million of which comes from the Volkswagen Foundation). Its staff numbers 1600, about one-third of them professionals. Bar-Illan University, in Tel Aviv, the only one of the universities with a pronounced religious orientation, has grown in 15 years from a college of 80 students to a broad-scope institution with an enrollment of nearly 5000 and a faculty numbering over 600. And in the booming Negev city of Beersheva, the Institute for Higher Education, a local-initiative spin-off of the city and the nearby Negev Institute for Arid Zone Research, was recently elevated to the status of the University of the Negev. At present, 1600 students are enrolled in a construction-filled campus, and discussions are being held about starting a medical school.

A Mini Cambridge Complex

Near all these institutions, often on the campus proper, industrial parks exist or are being established to encourage the growth of science-based industry. "We're too small for a Route 128," an Israeli science journalist told me, referring to Boston's internationally admired ring of high-technology industry, "but we can try for a Route 1.28." The interest in attaining industrial riches through science is long standing, but, despite all the talk about science-based industry, Israel's largest single sources of foreign revenue are diamond polishing, citrus products, fertilizers, textiles, tourism, and cash gifts. A budding aviation industry, which is developing an all-Israeli short-range civil transport, is the largest single employer, with 12,000 on its payroll. But the only big profit-making science-based industry in Israel is agriculture, which is highly mechanized, meticulously irrigated, and carefully linked to a vast program of sophisticated research and marketing. Among its recent triumphs is the development of a tomato suited to the tastes of British housewives. Market research concluded that they like their tomatoes small, round, firm, and salty. After 5 years of breeding, the first lot went to Lon-



Albert B. Sabin

don markets—by air freighter—this winter. They sold out quickly, and now there is an open-ended order for future crops.

Route 128, the Japanese experience, and the desire to keep the country alive and rich all point toward putting more science into industry, with the result that "applied research" is now the catchphrase throughout the Israeli scientific community. It has so penetrated the well-insulated preserves of pure science that even the Weizmann Institute is now looking for something to export besides scientific papers. The change in attitude is a striking one. Several years ago, a top administrator of the Institute was quoted as saying, "If somebody were to offer us a million pounds to start a project concerning, for instance, insecticides or pharmaceutical drugs, we would certainly turn him down. . . . Most of our work is pure research which has no applied goals." One of Sabin's first acts as president of the Institute was to appoint 12 groups to devise "an expanded program of mission-oriented research on problems of highest priority for the development of industry in Israel, and, if possible, also of world importance." The obsession with science-based industry coincides with the decline of U.S. support, most of which was concentrated on basic research activities, and also with a great deal of agonizing over whether Israel took a wrong turn when it chose to build a relatively large and elite system of basic research in a small, poor, and sparsely settled country. It is now widely agreed that the distribution of scientific and technical manpower is

seriously out of balance in the direction of basic research. How this happened seems reasonably clear. Immigration during the Nazi period brought many German scientists to the Holy Land; there was little opportunity for them in industry, but there was ample opportunity in the universities. And this was reinforced in the postwar period, when American proponents of basic research saw to it that their Israeli scientist colleagues were well looked after in distribution of foreign aid and private gifts. (The ties between the Israeli and American scientific communities are intricately tight. Israel is on the American "sabbatical circuit," as one scientist put it, and in 1967, when the Weizmann Institute sought an outside review of its research programs, the study committee was headed by two senior eminences of American science, Nobel laureate I. I. Rabi and M.I.T.'s Jerome Wiesner, White House science adviser under President Kennedy.)

Limits of Basic Research

Israel's strength in basic research can no doubt be looked upon as the peak of a system that has provided technological strength throughout the economy, and that permits Israel to operate a technologically advanced military force that is potent beyond its numbers. But industry has benefited remarkably little. A government survey in 1966 placed Israel's total of employed scientists and technologists at 2841, of whom only 13 percent were employed in industry. Now the importance of applied research is extolled throughout the scientific enterprise, so much so, in fact, that some people are beginning to feel that things may be going too far. A one-time researcher who has successfully gone off into business commented, "I wish my friends at the Weizmann wouldn't be so embarrassed about doing basic research. It's essential to the country, it trains people for other fields, and they shouldn't feel they have to make apologies or live with fantasies about having one foot in the Institute and one in the industrial park. Industry doesn't work that way."

A Weizmann biochemist stated his own view of the matter. "I'd love to do some applied research," he said, "but the trouble is I don't know how."

A look into the genesis, financing, and organization of Israel's academic and research enterprise shows that, more than is the case in most countries,

it just happened, rather than having been planned. With the traditional Jewish emphasis on education and science, it was inevitable that learning and research would be accorded a high priority. Israelis proudly point out that the founding of the State in 1948 was long predated by the founding of universities; the Technion was established in 1912 and Hebrew University in 1918, and the Weizmann Institute grew out of a research center established in 1934. Whatever the source of the drive toward education and science, it is clearly there. It was Yale's numerist of scientific affairs, Derek de Solla Price, who pointed out that an analysis of scientific publications produces the conclusion that "Israel has rather more scientists than the whole of Latin America and many more than the whole of Africa."

Nevertheless, despite the reverential regard that Jews traditionally hold for education, and the central role that it plays in Israel's quest for security and growth, Israel is, curiously enough, one of the few nations to charge tuition fees for public secondary education. And they are substantial fees—ranging from \$250 to \$300 a year—in relation to incomes, which are low to begin with and then severely taxed. (An experienced typist receives a salary of about \$180

a month; the director of a hospital department gets about 2½ times that.) Various exemptions and programs of assistance, especially for immigrants, free about half the students from any payment and reduces tuition for many others. But payment, unless an exemption is in order, is the basis on which the system operates. The same system of payment applies to higher education; this is in line with U.S. practice, but in contrast to what generally prevails in Europe, where students not only attend university without cost but also usually receive moderate living allowances. The reason offered for Israel's requiring payments is that the country could not afford any other arrangement. At the university level, the effect on enrollment is difficult to assess. Currently, about 14 percent of the university-age population is in higher education (university students are older in Israel, since men serve 3 years in the military upon reaching age 18; women serve 20 months). The Israeli enrollment rate is roughly similar to the rates in Britain, France, and West Germany. The U.S. figure is over 50 percent, but there the dropout rate is high and narrows the gap in terms of the percentage that complete their studies.

Of Israel's prewar population of 2.8 million, Arab-Israelis number 300,800.

Under the law, they are full-fledged citizens with all rights, though, as it turns out, they are not called to military service. Of the 40,000 students enrolled in Israel's institutions of higher learning, Arab-Israelis number 450, according to a publication prepared under the auspices of the Ministry for Foreign Affairs. An American visitor expressing curiosity about these figures immediately gets a feeling of déjà vu as his extraordinarily hospitable Israeli hosts explain why "they" are not to be found in large numbers in those gleaming gateways to the future, the universities. Of Arab-Israelis enrolled, very few are in science or engineering. The Weizmann Institute, which is a graduate school on the lines of the Rockefeller University, has 250 doctoral and 200 master's students, none of whom, according to officials there, are Arab-Israelis. About 20 Arab-Israelis are enrolled at the Technion, including six on scholarships financed by a Moslem charitable trust in memory of the late Prime Minister Levi Eshkol. The Arabs, it was explained by my Israeli hosts, started from a more backward educational tradition, and when going on to advanced studies, tend toward the humanities, law, and medicine.

The growing cost of research, as well as the high hopes Israel is pinning on



The Technion in Haifa, 45 buildings on a 300-acre site, typical of the growth of higher education and research in Israel.

scientific expertise, has led to a streamlining of the organizationally clumsy apparatus that had grown up to look after scientific matters for the Prime Minister's office. In higher education, however, the laissez faire spirit is only now running into government attempts at restraint, though government continues to pay most of the cost. At present, the focal point for government management of science is a 36-member body known as the National Council for Research and Development (NCRD), which is attached to the Prime Minister's office. It has many of the same study and advisory functions as the White House Office of Science and Technology, but in addition it administers a varied collection of research institutions and services that, for one reason or another, are unattached to a regular government ministry. These include the National Physical Laboratory in Jerusalem, the Weizmann Science Press, and the national oceanographic organization. A lengthy study concluded, last year, that the NCRD is a bureaucratic deformity, what with its mixture of advisory and operational responsibilities and assorted other defects. As a result, a reorganization is now under way, and when it is completed, the NCRD will be reconstituted as the National Research and Development Authority; it will drop its responsibility for running scientific organizations and confine itself to planning and advisory activities. As is the case with its American counterpart, its influence over budgets and programs will be a matter of advice rather than direct authority. Meanwhile, all government research activities, outside of the military, will be gathered into three newly created corporations—Israel's contribution to the universal effort to free government laboratories from relatively low civil service pay scales and boost their prestige but still keep them close to the government departments that need their skills.

Commitment to Education

The Jewish commitment to education has produced splendid results in Israel, but one gets the impression that the government, which currently pays 70 percent of the operating budgets for what is a wholly private system of higher education, would like to temper its people's educational enthusiasm with a bit of planning. This is difficult to do, since tradition strongly runs against the central government's doing anything with the universities but pay most of

their costs. If the educational setup were full-grown, and its costs therefore predictable, it might not be difficult for government to accept this arrangement. But there is a well-established tradition of new universities just popping up, usually at the initiative of municipal authorities, as happened in recent years in Haifa and Beersheva—and then getting on line for that 70-percent support. And, significantly, the money comes out of the Ministry of Finance, not the Ministry of Education and Culture. Evidence that the government would like to promote more coherence in the distribution of higher educational resources can be seen in a recent decision to set up a Cabinet-level committee to decide whether Tel Aviv University or the Holon Technical School should provide for the training of engineers in the Tel Aviv area. An earlier study committee split on the subject, and each institution then decided to go ahead with its own program. Attempts are under way to put some planning authority into a body known as the Council for Higher Education, which currently functions as an accreditation organization, but hopes are not high. In this miniscule country, the universities rank high in role and influence. They have fared well under the present system, and are not eager for change.

Fund raising is a well-developed craft on the American academic scene. Israel, which relies so heavily on foreign philanthropy, has refined fund raising to a science. Each of the well-established universities has set up Friends of the _____ University chapters in the United States and Europe. Virtually every constructed object on the campuses is adorned with a plaque denoting the donor. The virtuoso of Israel's fund raisers for learned purposes is the now semiretired Meyer W. Weisgal, former president of the Weizmann Institute. A nonscientist bag man of legendary attainments, Weisgal is universally credited with having brought in the financial sustenance that made it possible for the Institute to acquire a world reputation for scientific excellence. A colleague of his remarked, "Meyer's old and is getting out of the business, but when he goes abroad he still comes back with a million or two." As is usually the case with donors, they fancy having their names on durable objects but do not like to provide funds for cutting the grass. Chaim Weizmann is said to have often advised Weisgal, "Meyer, don't take gifts that

eat." But a relative abundance of funds for construction and a dearth of operating money plagues all of Israel's academic and research centers. Few donors are as thoughtful as the late Gerard Swope, president of General Electric, who left the Technion of Haifa some \$8 million with the expressed preference that it not be used to build anything.

Sabin as Administrator

Sabin's appointment as president of the Weizmann Institute produced some surprise, since the position had been looked upon as principally for fund raising. But Sabin, who has terminated his own research activities, has already demonstrated his fund-raising prowess. He returned from the U.S. recently with a \$1 million donation for a new institute of chemical sciences; another \$400,000 for an institute for the teaching of science, plus \$250,000 for an endowed chair, and about \$750,000 for a new institute of applied chemistry. Among the curiosities of international academic finance is the fact that the Weizmann Institute and several other Israeli institutions are chartered by the Board of Regents of the State of New York. This, in turn, qualifies them for support under the American Schools and Hospitals Act Abroad, which recently produced \$2.5 million for the Weizmann Institute for purchase of equipment.

To what extent has the enduring state of hostilities impinged upon Israel's academic and research institutions? The casual visitor would say, surprisingly little. Because of the draft, the student body is older and less carefree. Duty in the Reserve, frequently running to 60 days a year, takes able-bodied professors and truck drivers indiscriminately, and, by all accounts, attempts at evasion or securing comfortable duty are virtually unheard of. A Hebrew University microbiology professor, recently returned from a tour of duty on the embattled Suez Canal line, wryly noted that he held the rank of sergeant while one of his Ph.D. candidates was a lieutenant. Student life contains many of the dissatisfactions that have prompted eruptions elsewhere, but the Israeli students, possibly because of their age, the discipline of military experience, and the precarious plight of their country, have remained quiet. In mid-March, about 20 young people, described in the press as "New left students," attempted to demonstrate against plans to establish a Jewish set-

tlement in the former Jordanian-held town of Hebron. They were dispersed by troops. In speaking to students, government officials have occasionally encountered hostile questioning about the future of the territory acquired in the Six-day War. But no student "movement" of any size appears to exist. An Israeli who toured British universities recently to speak on current political matters expressed puzzlement over the affinity that Israeli students abroad seemed to have for New Left organizations. He dismissed it as an aberration. But in the view of a professor of sociology, the ingredients for a typical student explosion are present, "and when the war is over it will be our turn." In general, however, there is a smug feeling that all is well. Thus, *Technion Magazine's* editor finds "no cause" for student social discontent. "Israel is a working democracy; there are no extremes of wealth and poverty to agitate the conscience . . . our institutes of higher learning [are] sensitive to changes and alert to new ideas. And, to their credit let it be said they have generally adapted themselves to the fluid situation without internal or external pressure."

Quest for Friends

In its quest for friends, among other reasons, Israel has long welcomed foreign students. Some 15,000 have studied at its institutions since the mid-1950's, among them thousands from underdeveloped nations that are interested in Israel's strikingly rapid progress toward economic development. On hand at any one time are hundreds of American undergraduates, usually enrolled for a year or two. Their performance stirs mixed reactions. It is said that their relative affluence usually prices them out of close social relations with their Israeli counterparts. And they are generally credited with having brought drugs into the student scene. Hashish is readily obtainable, but many Israelis seem to regard it as an Arab indulgence, and there is a good deal of anger expressed about American students "luring" Israeli youngsters to the practice.

The part that the Israeli scientific community plays in military affairs is little discussed, partly for conventional reasons of military security, but also because Israel has long found advantage in conveying an image of vast but undisclosed scientific-military prowess. Brigadier General Ya'acov, the Defense Ministry's deputy chief scientist recited the widely published statement

that half of all Israeli expenditures for research and development are in the military field. And he added that the proportion is growing. He said that, as might be expected, major efforts are concentrated on electronics, night visibility devices, and materials. Israeli capability may even extend to advanced aircraft. While there are no plans at present, Israel might be able to develop a "super phantom" within a decade. Ya'acov said that there are more than 20 "greenhouse" groups seeking to keep in touch with scientific and technical developments that might have military application, but that the Defense Ministry itself funds little basic research. More research is being assigned to the universities, he said, including some classified research, but the amount is still relatively small. However, the ministry draws upon the universities for scientific counsel. Referring to the recent arrival of SAM-3 missiles in Egypt, he said, "Everyone in Israel is concerned about it, and if a scientist feels he can contribute to the solution of this problem, he will." He doubts, he said, that the military forces suffer from the lack of cooperation that exists between American and British defense research establishments. "Early science and technology are an open book for everyone to read," he said, "and when we see something we're interested in, our problem is to adapt it to our own particular needs." Of course, he added, there are many items too complex or costly for Israel to produce at present, but that is a matter of politics and finance, not research. He felt that, within the scope of its resources, Israel could look after itself in devising weaponry.

Ya'acov said the Arabs are yet to produce "a good weapons system," but added that there were fears Egypt might focus its limited technical resources on some particularly devastating weapon. "We assume," he said, "that they will have the capability for producing a nuclear weapon by 1990, and that they could produce serious chemical or biological weapons before that." The inevitable question about Israel's own nuclear intentions produced the standard, noncommittal reply.

Ushered out of the Defense Ministry of this warring country, I encountered an appropriate contrast. Atop the building was a wondrously complex spire of electronic devices; at the gate, seated on a common household chair, was a young sentry, rifle across his knees, animatedly chatting with a pretty girl.—D. S. GREENBERG

NEWS IN BRIEF

● NATIONAL SCIENCE BOARD

NOMINEES: President Nixon has announced nine nominees to the National Science Board, the 24-member governing body of the National Science Foundation: Herbert E. Carter, vice chancellor for academic affairs at the University of Illinois; Robert A. Charpie, president of the Cabot Corporation; Lloyd M. Cooke, director of urban affairs for Union Carbide Corporation; Robert H. Dicke, chairman of the physics department at Princeton University; David M. Gates, professor of botany at Washington University; Roger W. Heyns, chancellor of the University of California at Berkeley; Frank Press, chairman of the department of geology and geophysics at M.I.T.; H. Guyford Stever, president of Carnegie-Mellon University; and Frederick P. Thieme, president of the University of Colorado. All nominees with the exception of H. Guyford Stever have been nominated for a 6-year term. Stever would complete the final 2 years of the term left unexpired when Clifford M. Hardin, Secretary of Agriculture, resigned. Carter, Heyns, and Thieme are nominated for reappointment. All nominees are subject to approval by the Senate.

● WOMAN WINS PILL SUIT:

Mrs. Roberta Meinert has been awarded \$251,000 by a Brooklyn jury for damage claimed to be due to birth control pills. The jury ruled that the pill, Enovid, had not been properly tested; that the maker, G. D. Searle & Co., had not issued proper warnings; and that the pill did cause a blood clot to develop in the woman's intestines. A Food and Drug Administration official said he suspects this is the first time a birth control pill suit has been decided in favor of a plaintiff against the pill maker. The *Wall Street Journal* reports that about 200 such suits are pending.

● BURNING OIL SPILLS:

Portions of an oil slick in Trälhavet Bay, near Stockholm, Sweden, have been successfully ignited with the help of a chemical developed by the Cabot Corporation, Boston, Mass. The spill occurred on 20 March when two ships collided; the Swedish coast guard and representatives of the company subsequently spread Cab-O-Sil ST-2-0 over parts of the slick and ignited it. According to an Interior Department official, most oil slicks will not burn under ordinary conditions.