OISS FORM 51 (12/80)

CONGRESSIONAL RECORD
PROCEEDINGS AND DEBATES OF THE 97TH CONGRESS

SENATE

BILL	DATE	PAGE(S)
S. 1657	Oct. 1, 1982 Part III	S13251-53

Action:

Objection to consideration

UNIFORM SCIENCE AND TECHNOLOGY RESEARCH AND DEVELOPMENT UTILIZATION ACT

Mr. STEVENS. Mr. President, may I inquire of the distinguished minority leader, if it is possible to agree to request that the Senate now turn to the consideration of Calendar Order No. 541, S. 1657, a bill entitled the Uniform Science and Technology Research and Development Utilization Act. This is known as the patent bill.

Mr. ROBERT C. BYRD. Mr. President, reserving the right to object, I believe the Senator from Louisiana wishes to make a comment.

Mr. LONG. Mr. President, I object.

The PRESIDING OFFICER. Objection is heard.

Mr. STEVENS. Mr. President, that request was made in behalf of the distinguished Senator from New Mexico. Perhaps we can pursue that one further this evening also.

Mr. LONG. Mr. President, I would like to be notified in the event that request is made at a later time this evening.

Mr. STEVENS. Mr. President, I assure the Senator from Louisiana of that.

Mr. President, while we are clearing some matters, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The legislative clerk proceeded to call the roll.

Mr. SCHMITT. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.

Mr. SCHMITT. Mr. President, although the Senator from Louisiana, my distinguished friend, has objected to the consideration of S. 1657 at this point, I hope that consideration of this important legislation can be scheduled for the necessary debate and amendment in a period soon after we return in November.

This Nation is experiencing a critical economic malaise:

American productivity is increasing at its slowest rate since World War II—more slowly than that of any of the major industrialized countries.

Our leadership in the conduct and commercialization of science and technology is being challenged aggressively and with increasing success by our economic competitors.

Our investment in research and development has failed to increase in constant dollars in the past 10 years.

The percentage of U.S. patents issued to foreign inventors has almost doubled, from 22 percent in 1965 to 40 percent in 1981.

The total number of U.S. patents issued in 1981 is less than the number issued 10 years ago.

There are many reasons for this malaise and they include counterproductive tax policies, inadequate funding of basic research, overburdensome regulations, and shortcomings in scientific and technical training and education. My Subcommittee on Science, Technology, and Space has conducted extensive oversight hearings on Federal policies and programs for research and development and on the Federal Government's role in promoting the development, application and diffusion of new technologies.

One of our major findings has been the inability of this Nation to adequately capitalize on our enormous Federal investment in research and development. This research and development, in turn, is increasingly important as our critical edge in national security, economic competitiveness and general welfare.

Mr. President, the Federal Government invests annually in research and development, almost $40 billion, nearly half of the national total. Our findings reveal that, unfortunately, the new goods and services which result from this Federal investment are far fewer than from the private research and development effort. An important factor we found that inhibits the commercial utilization of federally sponsored research and development is the Federal Government's policy toward patents arising from this work. The policy of Federal agencies has generally been that title to a contractor's invention made under a Federal grant or contract belongs to the Government. Ownership of thousands of inventions has been acquired by the Federal Government in this manner.

The commercialization of an invention is a risk-laden and expensive enterprise. Hearings before our subcommittee revealed that for every dollar spent on research, usually 10 or more dollars are necessary to develop the research result into a product or service, which may or may not prove to be commercially successful. There are many factors which determine this success. Two of the most important though are: A proprietary position to justify the sizable investment of risk capital; and the involvement of the inventor in the development of the invention into a usable product.

Penicillin offers an excellent illustration of the importance of a proprietary position. The inventor of this wonder drug chose to publish his discovery to make it freely available to all humanity. The act of publishing automatically placed that product in the public domain, preventing anyone from obtaining a proprietary position on his discovery. The good intentions of the inventor were thwarted since no one would invest the large sums necessary to develop his discovery into a marketable product without having patent protection on that product. It was not until some 11 years later that the U.S. Government, faced with the compelling medical exigencies of World War II, undertook the development of penicillin itself.

It is with the same good intentions that the Federal Government has been trying through the confusing web of existing policies to aid the citizens of this Nation. These good intentions are being thwarted by our failure to understand how the patent system can best be used to benefit society. The lesson of penicillin's development should not be lost: The public cannot benefit from the discoveries of research and development if there are inadequate incentives to develop these discoveries into useful goods and services.

Perhaps the most thorough study ever conducted on the issue of Government patents was the Harbridge House report, completed in 1968. The report was commissioned by the Federal Council for Science and Technology in the Executive Office of the President. Among the findings included in the report:

> If the results of federally sponsored R & D do not reach the consumer in the form of tangible benefits, the government has not completed its job and has not been a good steward of the taxpayers' money. The right to exclude others conferred by a patent, or an exclusive license under a patent, may be the only incentive great enough to induce the investment needed for development and marketing or products. Such commercialization of the results of government-sponsored research insures that the public receives benefits in the way of more products, more jobs and a better quality of life. Therefore all the members of this subcommittee recommend transferring the patent rights on the results of government-sponsored research to the private sector for commercialization.
>
> A low, overall commercial utilization rate of government-generated inventions has been achieved; that rate doubled, however, when contractors with commercial background positions were allowed to keep exclusive commercial rights to the inventions.

More recently, the Patent Advisory Subcommittee of the Domestic Policy Review on Industrial Innovation studied the implications of vesting title in the contractor. Testifying in 1978, the chairman of that subcommittee observed that:

> Our Committee concluded unanimously that if the government's goal is to increase the government-owned technology that is incorporated in products which actually get to the marketplace, then it must find a way to transfer the rights to this technology to people in the private sector in a sufficiently attractive form that it would induce members of the private sector to make the necessary additional investments required to commercialize the technology.

Mr. President, the American citizens deserve a better return on their investment in research and development. Toward this end, 37 of my colleagues and I have sponsored the Uniform Science and Technology Research and Development Utilization Act, S. 1657, to:

First, establish and maintain a uniform Federal policy applicable to the management and use of the results of federally-sponsored science and technology research and development to stimulate more widespread commercial utilization of those results for the public good;

Second, insure the effective uniform implementation of the provisions of this act, and to monitor on a continuous basis the impact of Federal Science and technology policies on innovation and technology development.

This bill grants contractors limited patent protection on discoveries they make in the course of federally-supported research, if they assume responsibility for commercialization. The contractor is required to: Disclose his invention; file for a patent within a reasonable time; and report his efforts toward commercialization.

At the same time, the Government retains an irrevocable, nonexclusive, paidup license to make, use, and sell the invention for its own use. In addition, the Government has certain march-in rights to license an invention to a third party when the contractor's commercialization efforts are inadequate. March-in rights may also be exercised by the Government to alleviate serious health or safety needs, or to meet public use requirements specified by Federal regulations.

The bill provides further that Federal agencies may take title to an invention on a case-by-case basis if: It is deemed necessary by the agency to protect national security interests; or the contractor is not located in the United States; or it is necessary to implement an international agreement.

We believe that uniform Federal policy established in S. 1657 will go a long way toward significantly increasing the socially responsible transfer of federally sponsored science and technology into more competitive goods and services. This bill will:

Provide the certainty and incentive necessary for the contractor to assume the risks of commercialization of the results of federally sponsored research and development;

Facilitate the participation of the inventor in the development of commercially useful goods and services; and

Assure the safeguards necessary to protect the public interest.

This initiative has been endorsed by the administration, large and small businesses and the universities. Organizations such as the National Association of Manufacturers, Intellectual Property Owners, Society of University Patent Administrators, Licensing Executive Society, and others have endorsed S. 1657. These groups condemn the dismal record of product development generated under past policy and point to the more successful record established when that policy is reversed.

The policy of the Department of Health, Education and Welfare (HEW) since its formation, was to retain exclusive rights within the Department to any invention developed in the course of a Federal contract. In the period 1962-65, more than 600 inventions were reported to HEW and in only one instance were rights assigned to the contractor. As a result, grant supported investigators experienced great difficulty getting potentially useful drug innovations tested and screened by the pharmaceutical industry. The industry was reluctant to spend money on product testing without having a proprietary position since the Government retained title to the inventions. In 1968, a General Accounting Office report drew attention to this problem and the Department of Health, Education and Welfare subsequently initiated a waiver policy whereby the contractor could assume title to his invention if he also assumed the responsibility for its commercialization. The Government retained a royalty-free license for its own use.

After adoption of that policy, more than 50 federally supported pharmaceutical and life science innovations reached the marketplace in the 1969-74 period. The associated private capital investment has been estimated at more than $80 million.

Another example of the problems which S. 1657 is intended to correct is in the Department of Energy. The policy of the Department is to retain title to inventions which result from the Department's grants and contracts. Contractors are vested with nonexclusive licenses to their inventions but may request title on a case-by-case basis. However, experience shows that approval of such a request can take a year or more while DOE's staff of some 60 patent attorneys decide whether title is best left with the Government.

S. 1657 would allow the contractor to keep title to a subject invention provided he assumes responsibility for its commercialization. The rights would reside, not with the Government which licenses less than 5 percent of the inventions which it owns, but with the contractors, which have a licensing rate in excess of 20 percent.

Mr. President, the debate over Federal patent policy has been carried on for more than 20 years. As we look to the past, we see that the Federal bureaucracy has not been a successful manager of patents. The Government does not have the incentive, the risk captial, or the technical expertise to devote to patent management and development. This responsibility is best left with the contractor, whose record is much more compelling. S. 1657 is a reasonable proposal which will enhance both technological innovation and productivity by assuring Federal policies which encourage commercialization of the results of our $40 billion Federal investment in research and development. I urge your support for this measure.

Mr. STEVENS. Mr. President, while we await other clearances, I suggest the absence of a quorum.

The PRESIDING OFFICER. The clerk will call the roll.

The legislative clerk proceeded to call the roll.

Mr. STEVENS. Mr. President, I ask unanimous consent that the order for the quorum call be rescinded.

The PRESIDING OFFICER. Without objection, it is so ordered.