GOVERNMENT PATENT POLICY

THURSDAY, JUNE 3, 1965

U.S. SENATE,
SUBCOMMITTEE ON PATENTS,
TRADEMARKS AND COPYRIGHTS OF THE
COMMITTEE ON THE JUDICIARY,
Washington, D.C.

The subcommittee met, pursuant to recess, at 11:10 a.m., in room 3302, New Senate Office Building, Senator John L. McClellan (chairman of the subcommittee) presiding.

Present: Senators McClellan and Burdick.

Also present: Thomas C. Brennan, chief counsel, Edd N. Williams, assistant counsel, Stephen G. Haaser, chief clerk, Subcommittee on Patents, Trademarks, and Copyrights, and Horace L. Flurry, on behalf of Senator Hart.

Senator MCCLELLAN. The subcommittee will come to order.

Counsel call our first witness.

Mr. BRENNAN. Mr. Harry Page of the National Association of Manufacturers.

Senator MCCLELLAN. The Chair will make this observation, we were unable to carry out our schedule for hearings yesterday afternoon because of an issue that arose on the floor of the Senate that required the presence of the members of this subcommittee. And this morning we had previously scheduled a meeting of the Government Operations Committee that I felt I could not postpone—it was the second time that

Section 4: Since patent rights are provided for under the Constitution, they are granted to promote the welfare of the people. The term "welfare" can, and has been construed by the courts so broadly that it could be argued effectively that all patent rights emanating from Government contracts should be acquired on behalf of the United States. This would be so in those instances wherein Congress has specifically authorized the expenditure of the funds. For the courts to find otherwise would be, in effect, to find that Congress had misappropriated public money.

We therefore urge that the term "welfare" be deleted from section 5(a)(2), line 6, page 7.

To further clarify section 4(a)(2), page 7, the following language excerpted from the Saltonstall bill S. 789 is suggested:

"(2) The purpose of the contract is for exploration into fields in which the Government has been, at the time of contracting, the sole or prime developer and in which the national security, public health or safety requires close control of further development of such invention and its uses; or".

Section 8: Whereas patents issued on behalf of the United States are the property of the citizens of the country and the use of such patents should be encouraged for the benefit of all, we urge that certain portions of section 8 be changed.

Section 8(a): At end of paragraph change period after "purpose" to a comma and add "provided that no such patent shall be enforced by the United States against any citizen of the United States".

Section 8(b), lines 8 through 11, page 15: Change to read "Any such license may be granted for the effective period of the patent or for a more limited period of time, and shall be granted to citizens of the United States, without the payment of royalty to the United States".

Mr. PAGE. Mr. Chairman and members of the subcommittee, my name is Harry C. Page. I am patent counsel of Clevite Corp. and a member of the Patents Committee of the National Association of Manufacturers, on whose behalf I am testifying today.

The National Association of Manufacturers is a voluntary organization of business enterprises, large, medium, and small, located in every State.

These manufacturers account for the production of approximately 75 percent of the Nation's manufactured goods.

I have a prepared statement which has been submitted for the record. This generally supports S. 1809, the McClellan bill, and S. 789, the Saltonstall bill. It opposes S. 1899, the Long bill.

Mr. CAPPELLO. Mr. Chairman, my name is Henry J. Cappello. I am appearing in lieu of Mr. Perry who presents his apologies for not being present. It was impossible for him to rearrange his schedule to be here today.

Senator MCCLELLAN. He has been here, has he not, waiting to testify?

Mr. CAPPELLO. Yes.

Senator MCCLELLAN. I apologize to him but there was no other way that we could handle this. We attempted to do the best that we could under these circumstances. We could have heard him yesterday afternoon had we been able to keep up with our schedule, but this could not be done.

Mr. CAPPELLO. We appreciate the opportunity to appear.

Senator MCCLELLAN. You may proceed.

STATEMENT PRESENTED BY HENRY J. CAPPELLO, ON BEHALF OF J. P. PERRY, CHAIRMAN, SMALL BUSINESS PATENT POLICY COMMITTEE OF NATIONAL SMALL BUSINESS ASSOCIATION

Mr. CAPPELLO. Mr. Chairman and members of the committee, I am an attorney in general practice, Mr. Chairman, and I am also a consultant to the National Small Business Association in the field of patent policy and Government procurement and I also happen to be secretary-treasurer of the Space Recovery Research Center, Inc., Boca Raton, Fla., which is engaged in manufacturing aerological devices and has a strong patent-oriented position.

Senator MCCLELLAN. Would you like to have Mr. Perry's statement presented for the record or do you wish to go through it?

Mr. CAPPELLO. I would like to highlight the statement for you.

Senator MCCLELLAN. Why not put the statement in the record? Would you not like to have that done?

Mr. CAPPELLO. Yes, sir. I will just pick out the salient points, that is, excerpts from the statement by Mr. Perry.

technology by providing mammoth infusions of money and only money, it is not so clear to us that the paramount commercial rights to new technology in fairness and good conscience should not belong to the contractor.

The Government has no interest normally in the commercial applications and is normally not in a position to encourage the optimum exploitation of the commercial aspects of the invention.

Senator McCLELLAN. You know what the argument is there—the Government paid for it, for the time and wages and the effort that went into that contract; and, therefore, it ought to get all of the benefis from the contract.

Mr. CAPPELLO. I think that our position is that the Government gets exactly what it pays for in the contracts. The real thing that we are all concerned about is whether the public interest is served by the Government taking title to these inventions.

Senator McCLELLAN. What you are contending is that even though the Government paid for it and the contention is that the Government should own it, it is not best overall for the country, for the economy, generally, to have the Government own it because it is more likely to be developed, processed, and marketed if it is left in private hands.

Mr. CAPPELLO. That is correct. In our view the Government as an owner is no more than a trustee for the people, for the Government is not an owner as I would be an owner of a patent. The Government represents the people in this area. The important thing is what use these patents would have that would be most beneficial to the public, not the Government.

Senator McCLELLAN. The Government should serve the public, but the crux of it is how is the Government going to do it, is it going to go out and proceed to further develop and refine, further improve and test and do all of these things that are essential in most instances before the patent is marketable?

How is the Government going to do it? The only way that it could do it would be to contract it out to somebody and to make such a contract, the party who does that is likely to acquire and would likely re-

the general practice of the Government to secure a license from the patent owner or to buy directly from him or his licensees.

Even with the requirement for expanded advertised procurement following World War II, the problem of patent infringement was still not of significant importance and simply because under procurement directives one of the recognized exceptions for this negotiated procurement was authorized was patented items. In good faith the bulk of Government procurement patented items continued to be under license or by negotiation limited to licensed sources.

The current dilemma stems from recent Comptroller General decisions beginning in 1957 and which hold in substance—

(1) That negotiations for patent articles is not proper solely on the basis of their being patented;

(2) That the Government must resort to advertised procurement for patented articles and accept bids from infringing sources; and

(3) That the sole remedy for infringement under these circumstances is a suit against the Government in the U.S. Court of Claims.

The practical effect of these decisions is that procurement officers are in the position where they now must induce infringement of patented articles.

Related effects of these decisions show up in—

(1) The reluctance of procurement officers to negotiate for licenses for patented articles;

(2) Subterfuge on the part of Government representatives in attempting to obtain proprietary articles, plans, and specifications with the ultimate goal of inducing submission of bids by unlicensed sources based on the samples submitted, specifications, or a general requirement for a named proprietary item "or equal" and;

(3) Studied attempts to develop patentable improvements of proprietary items under Government research and development [illegible] to be able to defeat the original developer's pro-

curement with the patent holder or his licensees under these circumstances. Recent decisions by the Comptroller General, however, have prohibited awards to low bidders where it could be demonstrated that the Government had used without authorization the proprietary, but unpatented, designs of other concerns. This brings us to the somewhat unique conclusion that the inventor is in a more favorable position vis-a-vis Government procurement if he maintains his design as a "trade secret" than if he patents it. We believe that the present state of affairs completely overlooks the fact that more often than not the inventor seeks a patent on his discovery not so much in the hope of royalties but rather in the hope of enjoying some small preferential position in the manufacture of his brain child. Passage of S. 1809 would provide much needed protection to individual and small business patent holders without at the same time depriving the Government of means of circumventing the unrealistic demands of unreasonable or uncooperative patent holders.

AWARDS

From our association with inventors we feel that the awards provision (section 11) of S. 789 has much merit. Despite a formidable record of past contributions to our society, the individual freelance inventor is slowly vanishing from the scene—quite possibly in many instances due to his inability to live contently in the disciplined surroundings of most businesses.

RECOMMENDATIONS

The foregoing described legislation contains, in at least three of the bills, legislative language which is intended to alleviate most of the problems which we have discussed earlier in the statement.

We feel that the most nearly acceptable language is contained in S. 1809—McClellan bill—and we suggest the following amendatory language to accomplish revisions to implement our prior recommenda-

3. Providing an awards system for inventors of meritorious inventions or discoveries, whether or not patentable, submitted to the Government, which represent significant contributions to National Security or to the Public Welfare, and

4. Increasing the meaningfulness of issued patents by authorizing more examiners, improving quality of searches, and establishing a separate court to determine validity of patents.

Senator McCLELLAN. Thank you very much. Are there any questions Senator?

Senator BURDICK. No questions?

(The prepared statement of J. P. Perry follows:)

STATEMENT OF J. P. PERRY, CHAIRMAN OF SMALL BUSINESS PATENT POLICY COMMITTEE OF NATIONAL SMALL BUSINESS ASSOCIATION

Mr. Chairman, my name is J. P. Perry. I am appearing here as chairman of the Small Business Patent Policy Committee sponsored by the National Small Business Association of Washington, D.C. I am also president of Eastern Rotorcraft Corp. of Doylestown, Pa. I also have with me today Mr. Robert Custard who is patent counsel of the American Scientific Corp. of Alexandria, Va. and Mr. Henry J. Cappello, who is a consultant to the National Small Business Association on patent policy and Government procurement, and also secretary-treasurer of the Space Recovery Research Center, Inc. of Boca Raton, Fla.

A. HISTORICAL BACKGROUND AND PHILOSOPHY OF THE PATENT SYSTEM

Our committee represents a group of over 20 creative small businessmen who have a strong economic and philosophic interest in the patent system. We believe that the patent system was designed and has evolved, in theory at least, to benefit primarily the individual inventor and small business. Historically speaking the patent system evolved from English institutions wherein inventors and entrepreneurs of industries founded on new inventions were granted a limited monopoly, in derogation of the common law and the statute of monopolies which proscribed private trade monopolies granted by the Crown in ordinary commodities, such as salt.

Our forefathers in providing for limited monopolies for inventors in our Constitution drew on English law, and an ancient and worldwide institution which was and is still remarkably uniform. The patent system has been and remains a strong bulwark of our American economic and political institutions. We be-

we are preventing them from obtaining a dominant position in the industry. This is antitrust law—not patent law. Denying patent rights to all R. & D. contractors, large or small, on this premise, is evidence of the confusion which has been injected into this issue. The principle of limited monopoly for all patent holders, large, small, dominant or dominated, should be clear and uncontroversial. Cutting down patent rights because of unfair trade practices incident to holding patients is unsound and unfair to the vast bulk of patent holders. The remedy for unfair trade practices on the part of patent holders is to prosecute them under the antitrust laws. In appropriate cases the courts may require patent holders to give unlimited licenses, with or without royalty, or in extreme cases to dedicate the patents to the public. No segment of business can be more adversely affected by devaluations of patent rights than small business. To the extent that the protecion of the patent laws is lost or diminshed, creative small business will suffer or disappear. We can only urge this committee and the Congress to examine the motivation and the credibility of anyone who attacks the patent system or grants of patents on the ground that this enhances the position of market dominance for the grantee.

3. Status of patents held by the Government

Up until very recently we had been of the impression that when a patent was acquired by the Government, however acquired, that the patent was in essence dedicated to the public. The most that has ever been required even for a license to use a Government-owned patent, to our knowledge, has been to submit certain reporting information to the Department requiring a license. The military departments which hold the bulk of the Government's patents do not even have a system for issuing licenses, but in the past seemed to assume that the patent held by them were dedicated for free use by the public.

It has come as somewhat of a shock to us to learn that the Department of Justice in a pending case has asserted Government patent rights to background inventions in general use in the electronics industry as a counterclaim to a suit for patent infringement of certain electronics patents by the Government.

We believe this is a reversal of former policy and unsound in principle. As a constitutional question it is doubtful that the Federal Government has any right or power to deal with its patents as an ordinary individual owner does with its patents. The only sound position for the Government, in our view, is to dedicate in essence its patents to the public for unrestricted use, the purpose of patenting by the Government being only to prevent unentitled persons from patenting the same technology due to failure of the real developer to do it. Reasonable reporting or other restrictions should be imposed where licensing is deemed desirable; for example, to control the quality of the product, but no royalties or limited licenses should be permited. To do this would be to place tremendous power and influence in the hands of bureaucrats who might be tempted to use it for their

mitted a patent owner to sue the Government as well as others for infringement. In 1918 the statute was amended to extend the remedy of compensation to cover infringement by contractors on Government business and to limit such remedy to claim solely against the Government, in order to prevent delay in wartime Government procurement through court proceedings, based on allegations of patent infringement. The practical effect of this statute was to secure to the Government the power to cause infringement of patents without fear of injunction or other harassment against its contractors. Between wars resort to this statute languished, primarily because, in the few cases where procurement of patented items occurred, it was general practice of the Government to secure a license from the patent owner or to buy directly from him or his licensees.

With the requirement for expanded advertised procurement following World War II, the problem of patent infringement was still not of significant importance, simply because, under procurement directives, one of the recognized exceptions for which negotiated procurement was authorized was patented items. In good faith, the bulk of Government procurement of patented items continued to be under license or by negotiation limited to licensed sources.

The current dilemma stems from recent Comptroller General decisions beginning in 1957, which hold in substance—

(1) That negotiation for patent articles is not proper solely on the basis of their being patented;

(2) That the Government must resort to advertised procurement for patented articles and accept bids from infringing sources; and

(3) That the sole remedy for infringement under these circumstances is a suit against the Government in the U.S. Court of Claims.

The practical effect of these decisions is that procurement officers are in the position where they now must induce infringement of patented articles. Related effects of these decisions show up in—

(1) The reluctance of procurement officers to negotiate for licenses for patented articles;

(2) Subterfuge on the part of Government representatives in attempting to obtain proprietary articles, plans and specifications with the ultimate goal of inducing submission of bids by unlicensed sources based on the samples submitted, specifications, or a general requirement for a named proprietary item "or equal"; and

(3) Studied attempts to develop patentable improvements of proprietary items under Government R. & D. programs so as to be able to defeat the original developer's proprietary rights and incidentally acquire by implication all background rights.

The impact of the Comptroller General's decision at least in connection with proprietary and nonpatented articles has been softened by recent changes in the [illegible] Regulations which require and encourage the pur-

may be granted by the meeting of one or more restrictive tests. We think that even under meritorious circumstances, the individual or small business inventor faced with the burden of a protracted controversy with a Federal Bureau will abandon efforts to seek a waiver. For the foregoing reasons we believe that individual and small business inventors would favor the title and license provisions of S. 789 and S. 1809 over those of S. 1899.

Section 9 of S. 789, if enacted, would prove most beneficial to the individual or small business patent holder whose patent has been infringed under Government procurement. The remedy conferred by 28 U.S.C. 1498 is by suit against the Government in the Court of Claims. Such action is beyond the resources of most small patent holders and is generally otherwise unrewarding since the "compensation" so awarded is never greater than that which would have been obtained under a negotiated license and no recognition is given of the patent holder's extensive legal fees. While the executive departments may theoretically administratively settle claims, settlements of this nature seldom mature since the consent of the unlicensed supplier is necessary if he has indemnified the Government. There is clearly a crying need for effective and inexpensive means to satisfy the just claims of small patent holders so affected; and we would most strongly recommend that legislation providing such procedures be enacted.

A somewhat related proposal is contained in S. 1047. The Comptroller General in August 1958 ruled that the bid of the unlicensed low bidder must be accepted even if a valid privately held patent will clearly be infringed, since, in the Comptroller General's opinion, the patent holder has under 28 U.S.C. 1498 a remedy by way of suit against the Government. This decision further prohibited negotiated procurement with the patent holder or his licensees under these circumstances. Recent decisions by the Comptroller General, however, have prohibited awards to low bidders where it could be demonstrated that the Government had used without authorization the proprietary, but unpatented, designs of other concerns. This brings us to the somewhat unique conclusion that the inventor is in a more favorable position vis-a-vis Government procurement if he maintains his design as a "trade secret" than if he patents it. We believe that the present state of affairs completely overlooks the fact that more often than not the inventor seeks a patent on his discovery not so much in the hope of royalties but rather in the hope of enjoying some small preferential position in the manufacture of his brainchild. Passage of S. 1809 would provide much needed protection to individual and small business patent holders without at the same time depriving the Government with means of circumventing the unrealistic demands of unreasonable or uncooperative patent holders.

Awards

From our association with inventors we feel that the awards provision (sec. 11) of S. 789 has much merit. Despite a formidable record of past contributions

"'(c) upon denial of a petition for certiorari, if the determination has been affirmed or the petition for review has been dismissed by a U.S. court of appeals; or

"'(d) upon the expiration of 10 days from the date of issuance of the mandate of the Supreme Court, if such Court directs that the determination be affirmed or that the petition for review be dismissed.

"'(5) For the purposes of this section, the use or manufacture of an invention described in and covered by a patent of the United States by a contractor, a subcontractor, or any person, firm, or corporation for the Government and with the authorization or consent of the Government, shall be construed as use or manufacture for the United States.

"'(6) Compensation shall not be awarded under this section if the claim is based on the use or manufacture by or for the United States of any article owned, leased, used by, or in the possession of the United States prior to July 1, 1918.

"'(7) A Government employee shall have the right to bring a claim against the Government under this section except where he was in a position to order, influence, or induce use of the invention by the Government. This section shall not confer a right of action on any patentee or any assignee of such patentee with respect to any invention discovered or invented by a person while in the employment or service of the United States, where the invention was related to the official functions of the employee, in cases in which such functions included research and development, or in the making of which Government time, materials, or facilities were used.

"'(8) Nothing in this section shall be construed to authorize the use or manufacture by or for the United States of any invention described in and covered by a patent of the United States, which has not previously been held invalid by an unappealed or unappealable judgment or decree of a court of competent jurisdiction, without license of the owner thereof, unless the Secretary of Defense, or his delegate, shall determine in the case of each such invention that the national security of the United States requires such use or manufacture.'"

It will be noted that this amendment abolishes the present remedy of a suit in the Court of Claims, a costly and time-consuming procedure which is generally regarded as being most unsatisfactory. There is substituted an administrative procedure (which could very well be vested in boards of contract appeals or similar agencies) with the right of appeal to the Court of Appeals of the District of Columbia or the court of appeals for the judicial circuit in which the appellant resides.

(7) We further recommend that the language of section 11 of S. 789 be incorporated in S. 1809 at an appropriate place. This will fill a long-felt need for a system of rewards to compensate persons both in and out of Government who submit inventions or ideas which prove of substantial value to national security

encourage, but not support, future development in commercial areas, the granting of greater than nonexclusive rights to a contractor may be essential to encourage later private development.

Conversely, we believe an inflexible title policy such as that proposed by Senator Long's bill, S. 1899, would have two serious defects: (1) It would discourage the development at private expense of commercial applications for Government-sponsored inventions, and (2) it would reduce the cross-flow of ideas between Government and commercial research.

In its activities, the Government has now, and would have under the proposed legislation before the subcommittee, the free right to use all patents covering inventions made in the performance of work called for or required under the Government research contract. This is true even in those instances where the purpose of the contract is to build upon existing technical information of the contractor used by him in areas in which he has an established nongovernmental commercial position. This MCA approves.

However, a substantial issue arises with respect to the rights of the contractor versus his competitor in commercial areas where the Government does not act. We believe that in many cases the rights accorded the contractor must be more than nonexclusive to attract to Government research those whose primary interests are in commercial areas and who, because of their commercial background may be most capable of achieving contract objectives.

For example, let us assume that a contractor has a wide background in the synthesis of high-temperature-resistant plastics. The Government wants such a plastic for a particular missile application. The contractor, because of its background is uniquely suited to develop a plastic for the Government's particular use and, under all proposed legislation, would give the Government the free right to use that which the contractor develops in connection with the missile program. However, the plastic developed under the Government contract may have uses in the metallurgical field, in electrical appliances, or in many

Thank you very much for the opportunity of presenting our views to you on the important legislation which you are considering today.

Senattor McCLELLAN. Thank you, Mr. Peterson. Your statement is brief and concise and I guess that I should feel some comfort and gratification that you support the bill that I introduced. However, it is not a question of my bill or anyone else's bill—the objective here is to get the thoughts and the best evidence that we can from all sources of interest, to try to bring out a bill, and to enact it into law that will serve the country in the very best way.

Thank you very much, Mr. Peterson.

Mr. PETERSON. Thank you.

Senator McCLELLAN. Mr. Owens is our next witness.

Mr. OWENS. I do have a prepared statement but I would prefer if I may, to read and to expand and edit it somewhat; that is, the statement which I previously submitted.

Senator McCLELLAN. To do what?

Mr. OWENS. To read and expand the statement I have presented.

Senator McCLELLAN. And to expand it?

Mr. OWENS. Yes, sir.

Senator McCLELLAN. Very well. It is 10 minutes after 12 and I want to recess, if I can, at 12:30.

Mr. OWENS. I will be through by then.

Senator McCLELLAN. Very well. You may proceed.

STATEMENT OF MARK OWENS, JR., ASSOCIATE COUNSEL OF THE REGENTS OF THE UNIVERSITY OF CALIFORNIA, AND PATENT ADMINISTRATOR

Mr. OWENS. Mr. Chairman and members of the subcommittee, I am an associate counsel of the regents of the University of California and also the patent administrator for the University of California.

I am not a patent attorney, however.

My comments relate, of course, this morning to the position of the

curement regulations that govern the Office of Naval Research contracts subject, of course, to the royalty-free license right of the Government to use the invention for Government purposes. Recently, the Atomic Energy Commission has advised the university that since it was supporting a similar project by the same investigator-inventor, obviously its funds must have been used in the development of the invention. The inventor maintains that this is, so far as he knows, not true. But, he finds it extremely difficult to completely isolate these two contracts, since they were, in both fields of research, in the same general area. As the situation now stands, the university may possibly lose all commercial rights to the invention, including its investment in applying for patents, in spite of the fact that this research is sponsored by two Government agencies.

The fact that both agencies in the aforecited case are part of the Federal Government, one which would allow retention of rights, the other not, leaves some question as to the practicality and fairness of the current patent policies of the Federal Government.

A second case in point, which depicts the wide range of interpretation of policy among Federal agencies, concerns an invention for runway lights which was conceived and reduced to practice prior to receipt of funds from the Federal Aviation Agency, formerly contracting as the Airways Modernization Board. This contract was entered into, as I recall, in 1958, and was terminated long before President Kennedy's patent policy statement of October 1963. But, under this contract, the patent language was very similar to the patent language of the present Department of Defense contracts permitting the contractor to retain commercial rights, requiring the granting of a license for governmental purposes to the U.S. Government.

In this particular situation there was some disagreement as to whether or not the runway lights were an invention under the contract, or prior to the time of the contract. However, the university wished to settle the matter and offered to grant to the Federal Government a royalty-free license in the invention, as provided for in

I should like to point out that this is extremely critical, so far as the university is concerned, because the question has come to mind: What happens if the university licensed exclusively to some other licensee a particular invention which in subsequent years becomes a background patent under a new contract? This raises some very serious legal questions which have not been resolved as yet.

Obviously, under these circumstances the contractor's basic rights are usurped and its patent program and concomitant investments are endangered, for the Government may demand royalty-free use of any background invention which may be required to practice a future foreground invention for certain purposes.

It should be borne in mind that any one invention does not occur as a result of a particular contract or grant. The Federal Government should not lose sight of the fact that an institution, such as the University of California, has plant and facilities which are used in the research currently supported but to which a particular contract or grant had made no contribution. The Federal Government also should not lose sight of the fact that the institution enjoys a store of background knowledge and staff which are beyond any equitable total acquisition by the mere contribution of funds for a particular phase of research. Without the plant facilities, background knowledge, and staff, the institution would not qualify to receive research funds. Yet, how can the institution's equities in the conception and development of inventions be denied? This very important fact is not recognized in the current patent policies of some Federal agencies and certainly not in the Long amendments.

If any one sponsor insists upon keeping all patent rights in a given discovery, it is obviously unfair to the other sponsors and to the university, since their respective equities are not likely to be recognized in such situations. The result of such restrictive policy can only lead to the elimination of the sponsors with limited amounts of money from participation in the university's research programs and the loss of university-industry cooperation and mutual assistance.

Such losses would be indeed tragic in at least two respects:

tions. Since most inventions occur in the university as a result of basic rather than applied research and since research funds come from numerous sources, the university's policy must necessarily remain flexible in order to maintain an operable patent program from which the general public, the various sponsors of research, the university and industry may benefit.

Generally, it is the university's policy to issue nonexclusive commercial licenses, especially in those cases where commercial development had been completed and to grant limited periods of exclusivity in those cases where the manufacturer must expend a good deal of time and great sums of money to perfect a product.

In any event, manufacturers are required to undertake all commercial development of university inventions, and it is highly improbable that any invention made in the university would be developed commercially were the university not in a position to offer the manufacturer at least a limited exclusive period.

It simply is not good business practice for a company to risk its capital for the commercial development of a product if it cannot enjoy some period of exclusivity within which it would hope to recover its private investments. Of course, if the Government does all the development work and actually perfects a product for the commercial market, then there is greater likelihood for various companies to undertake the manufacture of an item which is covered by a public patent. But then the obvious question arises as to whether or not the Government should be competing with private industry to the extent of developing commercial products outside the field of defense.

The University of California, therefore, is obviously in favor of a procedure whereunder the equities of the inventor, the university, the Federal Government and other sponsors of research, the public and industry are considered. For this reason the university specifically favors passage of S. 789 or S. 1809, or a combination thereof, provided that provisions are made therein to include retention of patent rights by educational institutions, such as the University of California, which

recognized that it is a misnomer. It is not a patent problem at all. It is not concerned with the patent system; it is not concerned with the administration of the Patent Office. The subject we are dealing with involves the disposition of the public's property rights arising out of the huge expenditures of public funds.

Also involved is the problem of insuring that the manner in which the public's property rights are disposed of will not defeat the objectives we are trying to attain in specific legislation. The only way to do this is to study each bill as it comes up to make sure that the disposition of property rights involved will help us achieve the purpose of the legislation. Each piece of legislation, because it has problems unique to itself, should not be put into a Procrustean mold in order to try to get consistency in the disposition of the public's property rights.

I. LARGE PART OF GOVERNMENT ALREADY COVERED BY LEGISLATION

The Congress has already legislated in many areas so there is considerably more uniformity and consistency than one might think. The following agencies or programs are already covered by statute and require title on behalf of the public, to the results of research financed by the public:

(*a*) Department of the Interior: This department is bound by the Helium Gas Act, Saline Water Act, Solar Energy Act, Coal Research and Development Act, and Water Resources Act. All of these require that the public have the benefit of the research it pays for.

(*b*) Department of Agriculture: This department is bound by the Agricultural Marketing and Research Act, protecting the public interest and insuring that the public get the benefit of publicly paid research.

(*c*) National Aeronautics and Space Administration: This agency is bound by the National Aeronautics and Space Act of 1958 which I have criticized in many respects, not because of what the act says but because of the way it is being administered.

owned patents and make necessary determinations of the act. It would be affirmatively charged with the duty of protecting the public interest in scientific and technological developments achieved through the activities of agencies of the U.S. Government and would be charged with the dissemination of knowledge so developed. It will undertake a program of utilization as a means of widening the uses of patents, discoveries, and new scientific and technical knowledge derived from publicly financed research. This is expected to stimulate invention and innovation, which will cut costs, produce new products, and increase per capita industrial production through efficiency and new technology.

The third feature is intended to stimulate discovery and invention in the public interest by providing for the making of generous monetary awards as well as public recognition to all persons who contribute to the United States for public use scientific and technological discoveries of significant value in the fields of national defense or public health, or to any national scientific program, without regard to the patentability of the contributions so made. I believe this will serve as an incentive, which will elicit from private, commercial, or Government scientists their best efforts on behalf of the whole country.

III. SOME INTERNATIONAL ASPECTS OF GOVERNMENT PATENT POLICY

There are many reasons why the Government should retain title to the results of publicly financed research. One of these reasons is the effect on the country's balance of payments and the military aspects. Let me give you some specific, concrete cases.

A recent court decision in the U.S. District Court for the Northern District for the Court of Illinois (*Hazeltine Research, Inc.* v. *Zenith Radio Corporation*) has revealed how a firm, the Hazeltine Research, Inc., with a large patent portfolio, has prevented Americna firms such as Zenith, through international patent pooling arrangements, from exporting their goods to important foreign markets.

I ask consent of the chairman that the findings of fact and con-

The patent system endeavors to attain the constitutional objective of promoting the progress of science and useful arts by granting to the inventor or initial investor a temporary monopoly in a new product or process. The logic of granting such monopoly rights through patents in a free enterprise system rests upon the assumption that such grants will speed up technological progress through the stimulus it provides for the undertaking and financing of industrial research and development and of new industrial ventures and that the deliberate restraint of competition which the Government institutes by granting temporary patent monopolies in the use of inventions is intended to have the ultimate objective of serving the public interest in that the gains for society resulting from this stimulation will offset the restrictions on free enterprise which the patent grant imposes.

This stimulus is considered necessary to the undertaking of extraordinary risks. No one knows in advance whether he will be successful when he undertakes research. The cost may be great. There are many businessmen who have not invested a single penny in the cost of the inventions, but are ready to imitate the new invention and compete in selling the new products or using a new process. Why, then, risk large sums of money in inventing, in developing new markets, perhaps in investing large sums in new plant and equipment? If a patent monopoly, however, can be expected to keep the imitators off for just a short while, the innovator perhaps can secure a very attractive profit. The hope for such temporary monopoly profits serves, therefore, as an incentive to take risks.

But where are the risks in Government-financed research and development contracts? As a practical matter there are none. Practically all R. & D. contracts let by Federal agencies are on a cost-plus-fixed-fee basis. No matter how expensive a project turns out to be, the costs are covered by the Government.

Mr. Chairman, if the fellow who gets this contract succeeds in spending $100 million without finding anything, so long as he legitimately disposed of the money, he is entitled to not less than $7 million [illegible] having disposed of the Federal money. This is even if he

Dr. Roy C. Newton, retired vice president for research of Swift & Co. made the following report to the Department of Agriculture:

The policy of the USDA with regard to patents is closely and aggressively followed in the utilization research laboratories. These utilization laboratories account for approximately 85 percent of all USDA patents.

According to this policy every effort is made—

mind you, this is a fellow from industry—

to obtain U.S. patents on all inventions made in the course of these scientific studies. The U.S. patents are assigned to the Secretary of Agriculture and free licenses are issued to any responsible American citizen or company who requests it. The rights to foreign patents revert to the inventor if at the end of 6 months the U.S. Government has decided not to file application for patents in foreign countries. In practice the Government seldom files for foreign patents which means that foreign patents can be owned by the inventors and they are free to exploit them to their own financial benefit without any requirement to report except to the Department of Internal Revenue. In discussions with industry representatives there are two complaints commonly expressed. The first of these complaints has to do with domestic patents and arises from the fact that a company cannot get even a temporary exclusive license to compensate it for the expense of commercializing the product of the invention. These people will say that this inhibits the very objective of the research which is to market new products of agriculture, because no one will put up the risk capital for such a new venture without some exclusivity to protect it. A few leading questions, however, usually develops the fact that they will go into the venture if their competitors are marking a success of it, and if the invention is good enough to be very promising to their competitor they will try to beat him to it. It is doubtful, therefore, if this policy is a serious handicap to the commercialization of new developments by utilization research.

During hearings held in March 1963, by the Monopoly Subcommittee of the Senate Small Business Committee, which I chaired, practically every witness was asked if he knew of any data, studies, or facts of any kind at all which could support the thesis that the working of inventions will be fostered by transfer of the Government's property rights to a contractor. The unanimous answer was "No." When Mr. James Webb of NASA was asked the question he stated that:

"It is a very difficult statement to prove, but anyway I will do my

On page 6, section (8) it says that an invention shall be void when the contractor "knowingly withheld" rendering a prompt and full disclosure to that agency of such invention.

How can an invention be voided under present law and procedure? This whole section is meaningless and impossible; there is no way of revoking a patent unless fraud is proven.

Now, let us look at paragraph (9) on page 6, which provides "that nothing contained in this Act shall be construed as requiring the granting to the United States of any right or interest duly acquired in or with respect to any patent issued for any invention not made in the course of or under the contract."

What is the precise meaning of this paragraph, especially when combined with the definition of the term "made" on page 3? Does this mean that even if I thought of an idea and the Government paid to have it developed, it is not "made" under the contract? Is an idea plus a patent application without any actual reduction to practice enough to include it under this paragraph?

Is it not administratively almost impossible to prove that the invention was not conceived before the contract? It seems to me, Mr. Chairman and members of the committee, that this paragraph alone could be the basis of a mass giveaway.

Section 2(a) limits the scope of "invention" to patentable inventions (cf. sec. 2(g) of S. 1899).

S. 1809 does not establish any single agency charged with the administration and prosecution of the Government's proprietary interests. (See sec. 4 of S. 1899 to see how this should be covered.)

S. 1809 makes no affirmative provision for the collection and dissemination of scientific and technological information acquired by the United States.

I cite section 7 of S. 1899 for how this should be covered.

It contains no automatic screening provision to detect failure of the contractor to disclose fact of the making of invention under Government contract (cf. sec. 9 of S. 1899).

paigns, but I don't know about that. There are very few of them that I have managed to raise money from. They have great influence and they are very charming and attractive fellows. The only thing I say about them is that they should give more to public service and demand less for it because I think they are doing pretty well the way they are going right now.

Now, back to S. 1809. It contains no provision for awards for inventive contributions (cf. sec. 9 of S. 1899).

Section 4(a) specifies conditions in which the United States is to require "principal or exclusive" rights, but does not specify what those rights are to be.

Section 4(a) specifies a too limited set of conditions under which such greater rights are to be obtained by the United States. The inference is that outside of these limited conditions, the Government's property rights will be given away to the contractor. In addition, these conditions completely fail to take into account: (*a*) the relative contributions of the United States and the contractor to the invention; (*b*) the effect upon restraint of trade.

Section 4(a) permits the grant of greater rights to the contractor in "exceptional circumstances"—whatever this means—but provides no standards whatever to guide an agency head in determining what action is in the public interest.

In this connection, Senator Ribicoff, when he was Secretary of Health, Education, and Welfare, warned about the danger in the use of the phrase "exceptional circumstances."

> The phrase "in exceptional circumstances," is relatively vague and indefinite and, in the absence of any indicated criteria in the policy itself would appear to leave considerable latitude to each agency head to determine what constitutes such circumstances. While this does have the advantage of providing flexibility, it does have the disadvantage of exposing agency heads to the pressures of those contractors who would urge that each circumstance of hardship, however slight, represents an exceptional circumstance calling for more generous allocation of invention rights.

Section 4(b) too sharply limits the extent of the right the Govern-

Senator McClellan. Same ruling.

Senator Long. The latter speech presents a case history of what happens when a patent monopoly on the results of Government-financed research is given to a drug company. It is typical. In some respects it is amusing, although it is really tragic.

If you have not read it, I earnestly hope that the members of the committee will read it. I may say that the Miles Laboratories are making some effort to rebut in some part the information that I put in the record, and I will be glad to debate this subject with them. I think when I exposed this matter they said obviously Senator Long does not have all the facts. The man who did the inventing said that he was horrified at the price Miles Laboratories wanted to charge the public.

Well, perhaps I didn't have all the facts but I had a lot more than Miles Laboratories wanted me to have. I think what they were doing was charging about 40 times more than it cost to produce these little kits to test-retarded children or children who would be retarded unless you discovered an ailment that would lead to retardation. They didn't develop it, they didn't discover it. The fellow who did discover it didn't want 5 cents on it. All he wanted was the opportunity to serve his country and when he found out what kind of a fraud was perpetrated on the public as a result of him having patented this little invention, he was outraged and disgusted at the whole patent system. But that indicates to some extent how these discoveries, paid with Government money as it was in this case, by a dedicated man can be used to exploit and victimize the people of this country.

COMMENTS ON S. 789 AND S. 1809

Now, let me say a few words about the other two bills which purport to establish a national policy with respect to the disposition of the public's property rights.

In my judgment, S. 789 is an out and out giveaway. The principle of equity is ignored. The fact that the U.S. Government is pouring

We have joked about this. We have said, "Well, there are some risks. He might get run over by a truck on his way home with the contract, or he might lose the contract. He might leave it in a desk drawer and forget where he left it, or he might fail to add up a column of figures right."

Those are about the kinds of risks these people take with these magnificent Government contracts. These contracts are let on a Government favoritism basis. Let's not kid ourselves. There is no way you can lose on these billions.

Even the possibility of contract cancellation cannot be considered a risk, for the firms have invested none of their own funds and are generally granted, in addition, a return well in excess of the costs.

Where an inventor has not devoted his own independent efforts and resources to the development of an invention, but has used his employer's resources, it is a well-known common law doctrine that any resulting invention is the property of the employer.

Similarly, when the contractor has used Government money or facilities or both, and has been compensated by the Government for his efforts, and I might say compensated much better than these people are compensating their own employees, there is no justification for giving them also the title to the invention so made.

In that case, it is the Government which has made the invention possible and should in all propriety get what it paid for. That is exactly what private industry does.

I was discussing this subject the other night with an executive of a large corporation and he was curious to know why the Government would do research at all. I explained the reason and you and I both understand that. He gave me the case of one of his own inventors. They paid the man well. The man invented something which in his judgment has already earned his corporation $100 million. They gave the inventor a $500,000 bonus, but after they had made the $100 million and were still making more, they thought it might be well to give the inventor a little something extra. So they gave him another $250,000.

even to our enemies. A good example is the case of the *Bausch & Lomb Optical Company*. Contracts between this company and Carl Zeiss of Germany resulted in Bausch & Lomb transferring to the German concern, the desgins and engineering data developed with funds supplied by our own Navy Department. Senator Kilgore, of West Virginia, in a speech on the Senate floor on May 19, 1947, told of his experience after V–E Day when he discovered German binoculars made by Zeiss which were an exact duplicate of the Navy's 7.5 binoculars, which we thought were secret. The use of this patent pool enabled the entire German Army to be equipped with the latest optical instrument we had, and which was developed with public funds. In other words, Mr. Chairman, public funds were used to assist those who wanted to destroy us.

Another example of the use of international patent cartels is the case of magnesuim. A cartel arrangement among I. G. Farbenindustrie, the Aluminum Co. of America and Dow Chemical Co., established Dow as the sole producer of the metal in the United States. The U.S. output was deliberately kept small because of a high-price policy followed by Dow for its own private gain and because of the Aluminum Co.'s insistence that Dow not offer a cheap substitute for aluminum. In 1938, when Hitler's Germany had a production of 12,000 tons, our own production was kept at only 2,400 tons for the advantage of a private American firm. Moreover Dow's exports were limited to a specified amount to a single customer in Great Britain, who was then preparing to defend freedom in Europe, and to certain quantities which I. G. Farbenindustrie agreed to buy. Dow, by agreement couldn't even export to the European Continent. In this particular case an international patent cartel undermined the defense programs of our allies in Europe by withholding strategic raw materials from them and kept our own country weak by restricting production of this essential material.

The pushing and shoving by private firms to get the right to patent the results of Government-financed research must be stopped. Otherwise, we shall find that most of the results of our research, paid for by

My bill, S. 1899, should be modified so, if enacted, would not override the special laws already enacted by the Congress. You will notice that under S. 1899 the AEC provisions are retained. This should be extended to cover more of the recent provisions. In other words, S. 1899 or any general bill should be operable only where an agency is not covered by any provisions dealing with the disposition of the Government's property rights. If any general bill should be adopted, it should be on this formula. In this way, Congress will be enabled to look at the substance of each bill to see what the policy should be. To the extent that Congress does not do this, then a general bill may be salutary.

II DESCRIPTION OF S. 1899

The basic premise of S. 1899 is that inventions should belong to "those who pay to have them created." It is for that reason that section 3(b) of the bill provides that title to an invention shall be taken by the United States for the benefit of all the people of the United States if made in the performance of a Government contract. The premise is applied when according to section 2(i) the "conception or first actual reduction to practice" occurs incident to the performance of a Government contract.

This is the same principle which you supported, Mr. Chairman, as far back as 1947 in the form of the Kilgore-Aiken amendment to the National Science Foundation bill which stated that:

> (d) any invention, discovery, or finding hereafter produced in the course of federally financed research and development shall, whether or not patented, be made freely available to the public and shall, if patented, be freely dedicated to the public * * *.[1]

It is recognized that in practice situations do occur in which both the Government and private industry have made contributions to an invention. Section 10 of the bill, therefore, make provision for waiver of title by the United States when it is shown that the equity of a contractor predominates.

In waiving the Government's property rights there must be effective

(Subsequently the following was received and ordered printed at this point by the chairman.)

UNIVERSITY OF CALIFORNIA—PROPOSED AMENDMENT TO S. 1809 TO INCLUDE EDUCATIONAL INSTITUTIONS

Page 8, beginning line 5:

"tablished nongovernmental commercial position *or, in the case of an educational or nonprofit institution contractor which has a definite, established policy, approved and promulgated by its governing body, of retaining or acquiring title to inventions made by its employees or of requiring its employees to assign title to such inventions to a patent holding entity for the benefit of the institution,* the agency head shall acquire no greater rights than the nonexclusive * * *."

Senator MCCLELLAN. That is all we will hear this morning.

Senator Long is very anxious to appear before the committee today. I will recess until 2:30 this afternoon for the purpose of hearing Senator Long. There is another witness or two here have indicated, I think, that they would like to testify either now or at some future time. So if their testimony is short—it depends on how long or how much time Senator Long consumes—as to whether I can hear you or not—if you want to wait until a later date, that will be very satisfactory—we will have another day of hearings and give others an opportunity to testify regarding these pending measures and I would not hold any session this afternoon except to accommodate Senator Long, because the Chair has some other duties and obligations, too, but since Senator Long is vitally interested in this and has asked to be heard, we will hear him this afternoon. Those who are present and haven't been heard can work out with the counsel of the committee some arrangement for this afternoon and we will hear you if we can and if we cannot you will just have to go over to another time.

The subcommittee will now stand in recess until 2:30 o'clock this afternoon.

(Whereupon, at 12:35 p.m. the subcommittee adjourned to reconvene at 2:30 p.m. of the same day.)

investigators to report all possibly patentable ideas to the university. I do not mean that the investigator would simply not report patentable ideas. Rather, he would not be motivated to report ideas since the question of an invention is pretty much a subjective thing. The investigator himself may feel that his discovery probably is not an invention—"maybe I will not even bother reporting this. It is really nothing startling or novel." Therefore, we wanted to offer some further incentive to permit the Board of Patents to make the determination of whether or not a particular item was patentable, rather than leaving it up to the discretion of the particular inventor or investigator.

The reward to inventors under the former patent policy was on a descending scale starting at 25 percent of the gross royalty income received by the university, on down to 5 percent of any royalty income received in excess of a hundred thousand dollars. With the approval of the faculty and the regents of the University of California, the revised university patent policy was effected on July 1, 1963, to make the assignment of inventions mandatory when equities so indicate and to increase the royalty distribution rate as an incentive for voluntary reporting of all possibly patentable ideas. The new royalty rate reserves to the inventor 50 percent of all royalty income received after a deduction of 15 percent for overhead and administration costs and after a deduction of all patent prosecution costs.

Incidentally, this new royalty distribution rate is also now causing the university some problems. Apparently, there is a feeling within several agencies of the Federal Government that if too much money is given to inventors the invention will lose its "public" concept, which the agencies feel it should have. Therefore, it has been suggested that since the university is giving too much money to the inventors, that it will not be considered as a "special circumstance" under the Kennedy memorandum, and we may lose the right to retain commercial rights in such inventions. This matter is still under discussion.

While it is still too early to arrive at any definite conclusion on the

university. Rather than allow the investigators to avail themselves of such services at no cost and without restriction, the Public Health Service has directed that such services be obtained from commercial laboratories and that such costs be charged against the respective grants. Estimates were obtained in one case. These ranged from $30,000 to $50,000. The total amount of the research grant in this case was $50,000. In such circumstances, scientific investigators are limited in the exchange and development of scientific data. What is more, the public is actually burdened with costs, through taxation, that private industry is willing to assume.

A fourth case in point, which I believe is extremely critical in view of the present discussions of the so-called Long amendment, concerns the interpretation of the Saline Water Conversion Act by the Solicitor of the Department of the Interior, and by the Attorney General of the United States. Section 4(b) of the act states that: "This subsection shall not be construed as to deprive the owner of any background patent relating thereto of such rights as he may have thereunder." It also contains language making all inventions freely available to the public.

This, of course, as you recognize, is the same type of language which is in all of Senator Long's patent provisions, that is, in the patent provisions commonly referred to as the Long amendments.

In his 1962 interpretation of the Saline Water Conversion Act, the Solicitor states that patents on inventions resulting from Government-financed research and development work under the act be available to the general public without royalty or other restrictions and that background patents essential to the practice of patents or the use of processes for desalination of water resulting from research and development contracts issued under the act be available to the general public on reasonable terms and to the Federal Government royalty free.

I might also point out that the university is presently awaiting the receipt of funds under the Water Resources Research Act. I was advised just this morning that, contrary to the specific language and

manufacturer's actual development of commercial products—will be destroyed and the likelihood of the results of research being made available to the public will be diminished accordingly.

The University of California has maintained a patent program for the past 20 years. This patent program has two aspects: One involves determination of equities in new developments and coordination and control of inventions developed on the various campuses to insure that patent commitments under contracts and grants are honored. Another involves the acquisition of additional intramural funds for research from inventions. These funds are burdened with no outside patent commitments whatsoever and are apportioned through the recommendations of the academic senates of the university to research activities on all its campuses.

In connection with determination of equities in discoveries on the various campuses of the university, the patent rights of more than one sponsor often are involved. In an educational institution the investigator may have received funds from several sources, all of which will support his one research program. At best, determination of equities in inventions resulting from multiple-agency support is not a simple task, and such task is greatly complicated by the various contradictory, and at times nigh impossible, patent reporting requirements of the individual agencies of the Federal Government.

If any one sponsor insists upon keeping all patent rights in a given discovery, it is obviously unfair to the other sponsors and to the university, since their respective equities are not likely to be recognized in such situations. The result of such restrictive policy can only lead to the elimination of the sponsors with limited amounts of money from participation in the university's research programs and the loss of university-industry cooperation and mutual assistance.

Unlike the investigator in private industry where his employer likely plans his research programs and secures for him whatever funds are necessary, the investigator in the university does not enjoy such planning. By virtue of this faculty status, the university investi-

Now let us turn to our second point, that a strict Government-title policy would reduce the cross flow of ideas between Government and commercial research. We believe that such a policy would result in the attraction to Government research of those companies who are interested in such research for its Government potential only, rather than its commercial or mixed potential. This would segregate Government effort within and among contractors primarily interested in Government research and would certainly result in the loss to the Government of many new ideas and much valuable background which would otherwise result if commercial objectives were also considered.

In the opinion of our association, S. 1809 is an excellent bill which provides full safeguards to the Government and the public, while permitting an essential degree of flexibility to the responsible agency head to administer the patent rights provisions in Government contracts so as to best serve the public interest.

In order to clarify the present language of S. 1809, however, we offer two suggestions for amendment:

(1) In section 2(e), we suggest that "appears to be reasonably patentable" should read "is patentable." The obligations of disclosure, et cetera, are the same with either wording, but the suggested language sets a clearer standard.

(2) In section 3(b)(1), we suggest that "in the course of" be amended to read "in the performance of". The present wording might be taken to encompass research work contemporaneous with but unrelated to the performance of the contract, and this does not appear to be the intention.

Section 4(a)(2) of S. 1809 provides that—

> The agency head shall acquire, at the time of entering into a contract on behalf of the United States, the principal or exclusive rights in any invention made by the contractor if:
>
> * * * * * * *
>
> (2) The purpose of the contract is for exploration into fields which directly concern the public health, welfare, or safety.

STATEMENT OF ERNEST G. PETERSON, ON BEHALF OF THE MANUFACTURING CHEMISTS' ASSOCIATION, INC.

Mr. PETERSON. Mr. Chairman and members of the subcommittee, my name is Ernest G. Peterson and I am appearing today on behalf of the Manufacturing Chemists' Association, Inc. (MCA), a nonprofit trade association having 194 U.S. member corporations, large and small, which account for more than 90 percent of the productive capacity of the chemical industry in this country. I am chairman of the MCA Patent Committee, which is composed of 18 member company patent attorneys or executives. As for myself, I am manager of the Patent Division of Hercules Powder Co.

At the outset, I wish to emphasize that the subject of patents is an extremely important one to the chemical industry. As you may know, our industry spends more of its own money on research and development than any other.

Senator MCCLELLAN. Than any other industry?

Mr. PETERSEN. Than any other industry.

During 1964, for example, more than a billion dollars was expended by the chemical industry on research and development. Further proof of our vital interest in this subject lies in the fact that 20 percent of all U.S. patents issued are chemical patents.

We would like to begin our comments on the proposed legislation by thanking you for this opportunity to present the views of our association on the four important bills under consideration. We in the chemical industry who are responsible for patent matters have studied with much interest the bills which the chairman introduced in this and past Congresses on the subject of a uniform policy concerning property rights in inventions derived through the expenditure of public funds. The thoughtful consideration accorded all legislation affecting patents by this subcommittee has been greatly appreciated by those having a vital interest in the continuation of the U.S. patent system, which has contributed so significantly to the public welfare.

The subcommittee has before it three bills concerning establishment

(3) In section 4(a)(2) (p. 7, line 6) the word (public) "welfare" is used as a criterion. We believe this word is too broad and too indefinite in meaning in the context used here. It is conceivable that any invention developed in R. & D. programs could be related in some sense to public welfare. We believe this word should be defined or deleted.

(4) We believe that the approach suggested in S. 789 (Saltonstall bill) in section 3(e)(5) (p. 7, lines 21–25) whereby small business would be accorded a prima facie entitlement to patents R. & D. inventions developed through its efforts, regardless of the scope of Government interest, has merit. We would incorporate an equivalent provision in S. 1809 by inserting a new section "(d)" after section 4(c) (p. 9, line 2) reading as follows:

"(d) In making a determination under subsection (a), (b), or (c) of this section, the agency head shall acquire no greater rights than the nonexclusive license specified in section 3(b)(2) from any contractor who qualifies as a small business concern within the meaning of section 3 of the Small Business Act, unless he determines that this would not be in the public interest."

(5) In section 8(a), last sentence, (p. 14, lines 23–25), (p. 15, lines 1 and 2), and section 8(b) (p. 15, lines 3–11) the assumption is made that the United States as a patent holder may exercise all rights of a private owner of patents. As we have pointed out, this is subject to severe constitutional questions. We believe that most Government patents should be placed in the public domain with free use without licensing, and that in only a few instances, to protect quality or control quantity should the Government have power to grant unrestricted, royalty-free licenses. We recommend deletion of this language and incorporation of appropriate language to reflect the foregoing.

(6) In order to provide for an administrative procedure to permit fast and inexpensive adjudication of claims of patent infringement by the United States or contractors infringing patents in connection with Government contracts and to limit authorized infringement of privately owned patents by the United States to only those situations where such infringement is taken in the interest of national security, it is recommended that section 1498A of title 28 be amended by providing the following as a new section 10 of S. 1809:

"SEC. 10. Subsection (a) of section 1498 of title 28 U.S. Code is amended to read as follows:

"'(a)(1) Whenever an invention described and covered by a patent of the United States is used or manufactured by or for the United States without license of the owner thereof or lawful right to use or manufacture the same, the owner's claim for compensation for such use and manufacture shall be determined by administrative proceedings under such rules and regulations as the Federal agency head concerned may prescribe.

"'(2) Any person aggrieved by any determination under such an administrative proceeding shall be entitled to a judicial review of the basis for such de-

ship of commercial rights to patentable R. & D. inventions. In contrast to this program, when it comes to setting up administrative procedures to provide fair compensation for Government infringement of private patents the most we receive from the same sources is lip service or sympathetic understanding. One might reach the conclusion that some Government officials regard the American institution of private property as a transitory phenomenon which it is their duty to hasten to its demise.

E. PRESIDENT'S COMMISSION ON PATENT POLICY

There is about to be appointed a new Presidential Commission on Patent Policy. While we support the idea of such a Commission to study broad programs and provide philosophic guidance and justification for long-range reform of the patent system and the Patent Office, we are apprehensive lest the effect of its creation be to once again delay the Congress in acting to arrive at long delayed and badly needed reforms which will be discussed in these hearings. We believe the Congress has at its disposal now enough clear background to reach valid judgments in most of the areas urgently requiring legislative relief. The existing and proposed legislation which forms a background for these hearings provides an excellent framework for development of the comprehensive legislation needed to clarify and amend the law. We believe the timing of the Commission is such that new legislation developed by this committee, and enacted by the Congress now, will provide a basic agenda in implementation which will permit meaningful new evaluations by the Commission instead of a rehash of old ideas and programs.

F. CURRENT LEGISLATION

The Senate presently has before it a variety of bills which, if enacted, would alter the operation of the present American patent system. Among such bills are the following:

(*a*) *S. 789 (Saltonstall bill) prescribing a national patent policy*

This bill provides for a procedure to determine the respective rights of private contractors and the Government in inventions resulting from Government-sponsored research and development; a procedure for the administrative settlement of claims resulting from the infringement of privately held patents in connection with Government procurement; and a procedure for the granting of awards to inventors and innovators for meritorious discoveries.

(*b*) *S. 1047 (Williams bill) proposing an amendment to 28 U.S.C. 1498*

This bill would amend 28 U.S.C. 1498 by prohibiting willful infringement of valid privately held patents in connection with Government procurement unless such action was certified by the Secretary of Defense as being necessary to the

to invent and produce new products dedicated to the general welfare, there is little trouble in finding prior claim on the part of the Government to the fruits of invention.

However, when we leave these relatively clear-cut areas and get into the bulk of R. & D. efforts, particularly on the part of Defense and NASA, where a contractor is called upon to expand his expertise and knowledge in a specialized field such as electronics, or machine tools, or textiles, or instruments, where the contractor has substantial current commercial business and the Government in essence prods the manufacturer to speed up his technology by providing mammoth infusions of money, and only money, it is not so clear to us that the paramount commercial rights to new technology in fairness and good conscience should not belong to the contract. The Government has no interest normally in the commercial applications and is normally not in a position to encourage the optimum exploitation of the commercial aspects of the invention. At most in our opinion the Government should only have a right to force licensing of the invention if the contractor fails to make commercial use of it within a reasonable period.

Unfortunately, Congress and the executive branch in their appraisal of the R. & D. problem tend to look primarily at large contractors and to look with favor on the extreme adversary relationship that characterizes the gamesmanship between the expert contracting and administrative personnel on both sides. From our own personal experience, however, these attitudes on the part of Government personnel in dealing with small- and medium-size businesses are reprehensible. Most of these business men do not approach the Government as an adversary. They are trying to help the Government in meeting its procurement needs with their specialized knowledge and products and incidentally to earn a fair profit. (Parenthetically, the idea that anyone would presume to try to make a profit in dealing with the Government strikes many of our civil servants as being next to treason.) What we are trying to say to the committee is that we small creative businessmen need strong support from the Congress in reversing this antagonistic, predatory attiude of Government officials toward us in our attempts to interest them in our proprietary products. Congress must direct the philosophic approach of the major procuring agencies toward a sympathetic and protective attitude so that more of us are encouraged to deal with the Government and so that we receive not special treatment but essentially fairplay, the same thing that we demand in our dealings with ethical businessmen, large and small.

Initially we regarded the President's patent policy memorandum as a step in the right direction in formalizing and unifying the policies of the various Government agencies in dealing with the problem of who should be entitled to patents for R. & D. inventions. The implementation of this broad directive, however, left a great deal to be desired. It is understandable that from the standpoint of self-protection, if nothing else, most procurement officers and policymakers would tend to interpret discretionary language in the memorandum

6. It is a deterrent to concentration of wealth in the hands of the few. Raw economic power, in the absence of effective patent protection, can place small creative business and inventors at the mercy of the larger industrial elements of our society. The monopoly afforded by the patent system provides at least a reasonable opportunity to enter the market place with a superior or unique product, become established and prosper. A substantial proportion of creative industries which have achieved success from small origins in the recent past owe their success to a strong patent position which enabled them to overcome the competitive advantages of larger competitors.

7. It is a deterrent to the stratification of our institutions into preplanned and static industrial, economic and social patterns. As variety is the spice of life, so ingenuity and inventiveness gives the spark to economic, and social change. The ability to successfully introduce and market new products under the protection of the patent laws indirectly insures that men of wealth and power who might be satisfied by maintenance of an easy status quo, must remain alert to the threat to their security implicit in new patentable inventions, and so remain innovators themselves.

8. It is an incentive to competition, industrial progress and product improvement. In these days of diversity, many competing products are not identical or even reasonably similar. They fill the same needs, but the variety of substitutes, whether in foods, medicines, means of locomotion, entertainment, military hardware, or whatever, exhibit great deviations. The patented product provides a monopoly only in the most limited sense for most products. Basic inventions which do not allow for substitute devices to fulfill the same requirement are few and far between. Competition between substitutes based on factors other than price with more meaningful choices, usually exists in a market where there are patented articles. In the absence of an effective patent system, the only hope for survival of an industrial enterprise will be to make known things in cheaper ways, of cheaper materials. This will downgrade all products until we have shoddy goods to offer or no goods at all. New products of high quality will no longer be made; it will not be economically feasible to make them. We say that competition is enhanced in today's market by patents rather than restricted as claimed by many foes of the patent system.

9. It is the life blood of many small businesses. Many small companies exist and prosper on the basis of one or more basic patents which are central to their whole operation.

B. FACTORS WHICH ARE OPERATING TO DEGRADE THE PATENT SYSTEM

1. Uncertainty as to the validity or value of issued patents

In commercial practice it is a well-known axiom that a patent has no real validity until it has been litigated in the courts. There is no prima facie

4. We believe that the approach suggested in S. 789—Saltonstall bill—in section 3(e)(5), page 7, lines 21–25, whereby small business would be accorded a prima facie entitlement to patents R. & D. inventions developed through its efforts, regardless of the scope of Government interest, has merit. We would incorporate an equivalent provision in S. 1809 by inserting a new section "(d)" after section 4(c), page 9, line 2, reading as follows:

(d) In making a determination under subsection (a), (b), or (c) of this section, the agency head shall acquire no greater rights than the nonexclusive license specified in section 3(b)(2) from any contractor who qualifies as a small business concern within the meaning of section 3 of the Small Business Act, unless he determines that this would not be in the public interest.

5. In section 8(a), last sentence, page 14, lines 23–25, page 15, lines 1 and 2, and section 8(b), page 15, lines 3–11, the assumption is made that the United States as a patent holder may exercise all rights of a private owner of patents. As we have pointed out, this is subject to severe constitutional questions. We believe that most Government patents should be placed in the public domain for free use without licensing, and that in only a few instances, to protect quality or control quantity should the Government have power to grant unrestricted, royalty-free licenses. We recommend deletion of this language and incorporation of appropriate language to reflect the foregoing.

6. In order to provide for an administrative procedure to permit fast and inexpensive adjudication of claims of patent infringement by the United States or contractors infringing patents in connection with Government contracts, and to limit authorized infringement of privately owned patents by the United States only to those situations where such infringement is justified in the interest of national security, we are recommending changes in section 1498(a) as set forth at length in our statement.

It will be noted that this amendment abolishes the present remedy of a suit in the Court of Claims, a costly and time-consuming procedure which is generally regarded as being most unsatisfactory. There is substituted an administrative procedure—which could very well be

This committee has presently before it a variety of bills which if enacted would alter the operation of the present American patent system. Among these bills are S. 789, the Saltonstall bill, and S. 1047, the Williams bill, and S. 1809, the McClellan bill, and S. 1899, the Long bill.

While enactment of the foregoing legislation would not in and of itself provide corrections of all the considered weaknesses of the present patent system, we believe that certain of the proposed legislation would be most beneficial to the individual inventor and small creative business. Additionally, we believe that the business community at large will welcome the enactment of legislation which will result in uniform patent policy among the several executive branches.

Bills S. 789 and S. 1809 would both provide criteria and procedures to determine in an equitable fashion the rights of both the contractor and the Government in ownership of the inventions resulting from Government-sponsored research and development. The former legislation, in recognition of the special needs of individual and small business inventors, has a waiver provision which would favor the lodging of the title with such contractors. In contrast with the previous two bills, S. 1899 would normally place title with the Government although waivers may be granted by the meeting of one or more restrictive tests. We think that even under meritorious circumstances, the individual or small business inventor faced with the burden of a protracted controversy with a Federal Bureau will abandon efforts to seek a waiver. For the foregoing reasons we believe that individual and small business inventors would favor the title and license provisions of S. 789 and S. 1809 over those of S. 1899.

Section 9 of S. 789, if enacted, would prove most beneficial to the individual or small business patent holder whose patent has been infringed under Government procurement. The remedy conferred by 28 U.S.C. 1498 is by suit against the Government in the Court of Claims. Such action is beyond the resources of most small patent holders and is generally otherwise unrewarding since the "compensation" so awarded is

Unfortunately, Congress and the executive branch in their appraisal of the research and development problem tend to look primarily at large contractors and to look with favor on the extreme adversary relationship that characterizes the gamesmanship between the expert contracting and administrative personnel on both sides. From our own personal experience, however, these attitudes on the part of Government personnel in dealing with small- and medium-size business are reprehensible. Most of these businessmen do not approach the Government as an adversary. They are trying to help the Government in meeting its procurement needs with specialized knowledge and products and, incidentally, to earn a fair profit. And, parenthetically, the idea that anyone would presume to try to make a profit in dealing with the Government strikes many civil servants as being next to treason.

What we are trying to say to the committee is that we small, creative businessmen need strong support from Congress in reversing this antagonistic, predatory attitude of Government officials toward us in our attempts to interest them in our proprietary products.

Congress must direct the philosophic approach of the major procuring agencies toward a sympathetic and protective attitude so that more of us are encouraged to deal with the Government and so that we receive not special treatment but essentially fairplay, the same thing that we demand in our dealings with ethical businessmen, large and small.

We feel that some legislation similar to S. 1809 is overdue. Unless this committee acts to bring forth a comprehensive, well-considered piece of legislation to provide overall policy guidance and to help reestablish the fundamental philosophic justification for private ownership of patents, we can expect more of the piecemeal whittling away at patent rights which has characterized recent Congresses. This whittling away at the edges will soon become a frontal attack on the very patent system itself unless positive steps are taken soon to recognize the importance of patent rights to the individual inventor and

a patent has no real validity until it has been litigated in the courts. There is no prima facie value to an issued patent. This situation has progressed to the extent that coordinated branches of the Government will accord no measure of value or validity to a patent which another branch of the Government, the Patent Office, has certified and issued. Greater assurance must be developed that issued patents are valid patents. Possible solutions to such an objective would be (1) to limit the time following issuance of a patent during which the validity of a patent my be contested; and (2) to provide that a patent can be invalidated only by way of a suit which is heard and determined by the Patent Office.

A second factor is the confusion of patent policy and antitrust laws.

We of the small business community are continually concerned by the attacks on patents from within and without the Government flowing from the implication that the issuance of patents promotes monopoly practices which contravene the antitrust laws.

Cutting down patent rights because of unfair trade practices incident to holding patents is unsound and unfair to the vast bulk of patent holders. The remedy for unfair trade practices on the part of patent holders is to prosecute them under the antitrust laws.

In appropriate cases the courts may require patent holders to give unlimited licenses, with or without royalty or in extreme cases to dedicate the patents to the public.

No segment of business can be more adversely affected by devaluations of patent rights than small business. To the extent that the protection of the patent laws is lost or diminished, creative small business will suffer or disappear. We can only urge this committee and the Congress to examine the motivation and the credibility of anyone who attacks the patent system or grants of patents on the ground that this enhances the position of market dominance of the grantee.

The third item is the status of patents held by the Government.

It has come as somewhat of a shock to us to learn that the Department of Justice in a pending case has asserted Government patent

It is true that the mere publication of the information in a Government patent or, for that matter, in any publication, may lead to a commercial exploitation of the idea and perhaps to a commercial exploitation by several individuals or companies.

However, this will not ordinarily be true if a considerable risk is involved in whether the idea can be profitably exploited. In these cases, in the rights granted by the patent, some degree of exclusivity is needed.

In the past 2 days there has been much talk of the ownership of a patent. It seems to me that more attention should be given to the reaping of the benefits that our patent system provides. This tool should be used to obtain the development and promotion of the invention in commercial fields where the tool is needed.

Senator McCLELLAN. What you are saying is that irrespective of who owns the patent the principal purpose should be to get the benefits of the development and have them made available to the public?

Mr. PAGE. This is correct.

Senator McCLELLAN. That should be the motivating guide for us in determining how best to do this?

Mr. PAGE. This is right.

Senator McCLELLAN. Rather than squabbling over who should own the title?

Mr. PAGE. This is right.

Now, this need is best satisfied by leaving the ownership of the patent in private hands. Indeed, as pointed out before, this need is not generally satisfied by Government ownership of the patent. Indeed, the purpose of the patent system is to a large degree lost when the Government takes title to the patent.

Now, in the case where the Government does have title to the patent, either it comes from the Government or from a Government contract by which the Government acquired title and in such a case—where the benefits of the patent system are necessary in order to procure the com-