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heart disease, cancer, and stroke, and other major diseases.

Mr. YARBOROUGH. Mr. President——

The PRESIDING OFFICER. Who yields time?

Mr. MANSFIELD. Mr. President, I assume that the Senator from Texas would be in charge of the time until the Senator from Louisiana [Mr. LONG] arrived.

Mr. YARBOROUGH. I yield myself 10 minutes.

The PRESIDING OFFICER. The Senator from Texas is recognized for 10 minutes.

Mr. YARBOROUGH. Mr. President, the Senate has under consideration this morning a piece of major legislation, S. 596, a bill to combat heart disease, cancer, and stroke—major diseases. These are the major killers of our population. The measure is designed to avert death and disability from these diseases. They being major diseases, we should have major means to combat them.

The incidence of these diseases was developed in the hearings on this measure before the Subcommittee on Public Health of the Committee on Labor and Public Welfare of which I am a member. The statistics show that the three diseases together cause more than half of all the deaths in the United States in 1 year.

In 1963, 707,830 persons died of, and from 25 to 30 million more suffered from, heart disease. The direct medical cost of heart disease in 1962 alone was $2.6 billion. The loss of income from heart disease that year amounted to $19.8 billion, for a total cost for this one disease in 1962, of $22.4 billion.

Also in 1963, 273,562 persons died of cancer. Another 830,000 were under treatment. It is estimated that 48 million people now living will have cancer. The total annual cost of cancer is $8 billion.

In the same year, 1963, 201,166 persons died of strokes. At least 2 million more now alive had strokes, and many of them are paralyzed. The economic cost of strokes is more than $1.1 billion a year.

These diseases are great killers and cripplers. They sap our economy of $31.5 billion each year. They cause untold hardship, anguish, and suffering. But they give ground to organized attack, and this present bill is an organized attack upon them. We are dealing, in the amendment offered by the junior Senator from Louisiana, with the question of whether we will make the attack now or whether we will withhold the attack until some private monopoly can zero in with their patents, some 3 to 5 years after a discovery is made—which is possible if we give away these patents that have been bought and paid for by the Government. The private recipient of a U.S. patent, as we have seen under our present system, can protect his patent against possible other users and delay the product of research from promptly reaching the people whom it is intended to serve.

We are dealing with more than the question of whether the public should get the benefit of its medical discoveries paid for with public moneys or whether private manufacturers should get the benefit. We are dealing with the question of whether this relief from human suffering and anguish will be granted soon after discoveries are made or whether that relief will be delayed for years while private monopolists secure all their patent rights.

Since I have been in the Senate, two who were near and dear to me have died of cancer after prolonged illnesses. If any Senator has had anyone die of cancer within recent years and observed that person after they have reached the stage when the pain is so intense that neither morphine nor any other pain killer can relieve it, and nothing but death can relieve the pain, he would think a long time before he would vote to withdraw the product from the people until some private monopoly, which has used the money of the people to do the research, had developed the patent, and zeroed in all the patent rights, to reap an additional profit, on top of that granted with the Government research moneys.

No plainer issue has been before the Senate for some years. Each Senator must stop and consider whether he will vote to give the benefit of Government-paid-for medical discoveries to the public now or make the public wait for 3 to 5 years, so that the private monopoly may get exclusive patents lined up on these Government-financed discovery. If a Senator stops and considers the question, he will think for a long time before he votes against the amendment offered by the junior Senator from Louisiana.

Mr. President, we have had numerous instances in history in which the public use of medicines has been delayed, after discovery, until some private interest could get its patents lined up.

I shall read from page 21 of a book by Richard Harris, entitled "The Real Voice." The book is an account of Senator Estes Kefauver's investigation into the drug industry and the battle which ensued.

I read from page 21 as follows:

In looking into the development of the antibiotics, the staff started at the beginning—with Sir Alexander Fleming's discovery of penicillin, in 1929. Fleming realized that penicillin had a potent, if obscure, effect on certain bacteria, but it wasn't until 1941 that other British researchers proved that the drug was highly efficacious in treating septic wounds. That year, the U.S. Government became eager to determine whether it could be produced in quantity, and two British researchers were brought to this country, under the auspices of the Office of Scientific Research and Development, to try to get private pharmaceutical houses interested in working on the project. They had almost no luck. A few weeks after the attack on Pearl Harbor, Dr. Vannevar Bush, Director of the OSRD, personally brought a number of drug firms into the picture. Almost a year and a half later, in the spring of 1943, they had accomplished little in the way of quantity production, and on April 27 Dr. Bush wrote a letter to Elihu Root, Jr., then a consultant to the Army Air Forces: "Now, the pharmaceutical companies have cooperated in this affair after a fashion. They have not made their experimental results and their develop-

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BLIC HEALTH SERVICE ACT—AMENDMENT

The Senate resumed consideration of the bill (S. 596) to amend the Public [illegible] Act to assist in combating

ment of manufacturing processes generally available, however. * * * This is the problem. It obviously needs some very careful handling." As it turned out the problem was that most firms were too busy trying to corner patents on various processes in the production of penicillin to produce much of it, and the Government began pressing them to work together. It was slow going. On January 19, 1944, Dr. Albert L. Elder, the coordinator of a special penicillin program run by the War Production Board, sent a memorandum to Fred J. Stock, head of the Drugs and Cosmetics Section of the WPB, complaining about the refusal of the drug firms to exchange information, and added, "The value of penicillin in saving the lives of wounded soldiers has been so thoroughly demonstrated that I cannot with a clear conscience assume the responsibility for coordinating this program any longer while at the same time being handicapped by being unable to make available information which would result in the output of more penicillin and thereby save the lives of our soldiers."

Not even to save the lives of those men who were fighting for the survival of democracy would those private seekers after patents make the discovery of penicillin available so that it could be produced.

Mr. President, I ask unanimous consent that there be printed at this point in the RECORD the paragraphs that I have read, in addition to the remaining discussion of this question which appears on pages 22 and 23, down through the first 2 lines of page 23, in the book by Richard Harris.

There being no objection, the excerpts were ordered to be printed in the RECORD, as follows:

In looking into the development of the antibiotics, the staff started at the beginning—with Sir Alexander Fleming's discovery of penicillin, in 1929. Fleming realized that penicillin had a potent, if obscure, effect on certain bacteria, but it wasn't until 1941 that other British researchers proved that the drug was highly efficacious in treating septic wounds. That year, the U.S. Government became eager to determine whether it could be produced in quantity, and two British researchers were brought to this country, under the auspices of the Office of Scientific Research and Development, to try to get private pharmaceutical houses interested in working on the project. They had almost no luck. A few weeks after the attack on Pearl Harbor, Dr. Vannevar Bush, Director of the OSRD, personally brought a number of drug firms into the picture. Almost a year and a half later, in the spring of 1943, they had accomplished little in the way of quantity production, and on April 27 Dr. Bush wrote a letter to Elihu Root, Jr., then a consultant to the Army Air Forces: "Now, the pharmaceutical companies have cooperated in this affair after a fashion. They have not made their experimental results and their development of manufacturing processes generally available, however. * * * This is the problem. It obviously needs some very careful handling." As it turned out, the problem was that most firms were too busy trying to corner patents on various processes in the production of penicillin to produce much of it, and the Government began pressing them to work together. It was slow going. On January 19, 1944, Dr. Albert L. Elder, the coordinator of a special penicillin program run by the War Production Board, sent a memorandum to Fred J. Stock, head of the Drugs and Cosmetics Section of the WPB, complaining about the refusal of the drug firms to exchange information, and added, "The value of penicillin in saving the lives of wounded soldiers has been so thoroughly demonstrated that I cannot with a clear conscience assume the responsibility for coordinating this program any longer while at the same time being handicapped by being unable to make available information which would result in the output of more penicillin and thereby save the lives of our soldiers."

By then, an obscure outpost of a Government agency was far ahead of the drug firms, the scientists of a Department of Agriculture laboratory in Peoria, Ill., were rapidly evolving a method of large-scale production. Soon, the Department filed its own patent applications, and they were granted, whereupon, under its regulations, all of its patents were made available to any producer without charge. By the time the war ended, the production of penicillin had reached some 7 billion units—an average shot may be 600,000 units—and the drug had saved the lives of thousands of servicemen. After the war, more and more drug firms began making and selling the drug in a stiffly competitive race; within 8 years the price had fallen from $200 per million units to 60 cents per million units.

Mr. YARBOROUGH. Mr. President, it was the research branch of the Department of Agriculture which discovered a faster method of producing penicillin, and enabled the mass production of penicillin for the use of the Armed Forces. It was not the pharmaceutical companies which were sitting back and waiting until they could zero in on the patents.

In the case of a public patent, the people develop the product with their money. It is made available to all the public and all manufacturers. The Government does not go into private business of manufacturing the drug product. It will give the rights to manufacture to all those whom it feels can manufacture it and get it on the market at the lowest cost to the public. This is the true free enterprise system. It stimulates competition between the different drug manufacturers to get the product on the market in the most usable form, and results in the speedier usage of new drug discoveries.

While price is a great factor, and the saving of money by the patient is a great factor in the case of new drugs, time is an even greater factor. In the case of new cancer discoveries, many lives might be lost by the delay in announcing a new discovery. The obtaining of monopolistic patent rights is always a cause of long delay.

Mr. President, because the Government kept the patent rights on penicillin, it was made available to the public at a vastly lower cost per million units of pencillin. The price of penicillin fell from $200 for 600,000 units of pencillin to 60 cents per 600,000 units in 8 years, under the competitive private enterprise system. The Government made the benefits of the penicillin discoveries at a small agricultural research station at Peoria, Ill., available to all penicillin manufacturers and that caused the great saving in price.

If the Government retains the benefit of its research, it gives that knowledge free to all drug manufacturers, and strengthens the private enterprise system, as well as getting the drugs on the market without undue delay.

If we were to give the companies $650 million for research as provided in this bill, with research paid for on a cost-plus, fixed-percentage basis, if they find nothing, they have made their profit, they are paid the money.

If they find something, these drug manufacturers expect that we should allow them to patent the product, pull it off the market and then sell it years later at an unconscionable price.

There was printed in the RECORD a few days ago, and I ask unanimous consent to have reprinted at this point in the RECORD an article from the Washington Post of May 19, 1965, which outlined how the price of one unit of medicines that were discovered with Government moneys partly in a university laboratory and partly with private research, was overcharged 40 times, until the Government stepped in and reclaimed for the Government its own discoveries in the field of prevention of mental retardation.

There being no objection, the article was ordered to be printed in the RECORD, as follows:

[From the Washington (D.C.) Post, May 19, 1965]

HOW BAR TO RETARDATION WAS OPENED TO THE MANY—TEST COST CUT TO ONE-FORTIETH

(By Morton Mintz)

This is a story of why a test used to prevent a severe form of mental retardation costs 1.2 cents per baby instead of 40 times as much.

It did cost 50 cents per baby for a time. Had that price prevailed, says the U.S. Children's Bureau, certain States would not have begun mass testing programs and many children who now will be normal would have been irreversibly retarded.

Exclusive rights were originally assigned to a private firm that charged $262 for a test kit that the inventor manufactured for $6. The Government has now obtained uncontested rights in the pending patent application and any qualified organization can make the kits without paying royalties.

The story was pieced together from interviews and from Government files obtained by Senator RUSSELL B. LONG, Democrat, of Louisiana, as chairman of the Senate Small Business Committee's Monopoly Subcommittee. LONG discussed the story in the Senate Monday.

Since 1959, LONG has been working to give the Government property rights in inventions developed with the help of the $15 billion a year that the Government spends with research and development contractors. The mental retardation test was developed largely with Government funds.

STORY'S LEADING FIGURE

The leading figure in the story is the inventor of the test, Dr. Robert Guthrie, of Buffalo, a brilliant scientist and himself the parent of a retarded child.

"I had always assumed," he said, "that the price would be reasonable." But he termed himself naive about such matters.

The simple, reliable test he developed detects the metabolic disorder phenylketonuria, usually called PKU.

A few drops of blood are taken from the heel of an infant in the first few days after birth. If the disorder is found, a special diet will prevent retardation.

The incidence of PKU had been believed to be 1 in 20,000 to 40,000 births, but a mass screening of 400,000 infants in 1962–63 established a rate of at least 1 in 10,000. That indicates a nationwide potential of about 400 PKU-retarded infants a year, including roughly 3 in the District, 7 in Maryland, and 9 in Virginia.

MANDATORY IN MARYLAND

The test is now being performed regularly in 90 to 100 percent of the hospitals with maternity services in 14 States and in a total of 2,600 hospitals in all States except Alaska. Some States, including Maryland, have made the test mandatory for hospital births.

In Massachusetts, the test has detected 33 PKU cases. Dr. Guthrie said this was done with mass screening that cost State taxpayers about as much as lifetime custodial care for one person in a public institution.

Dr. Guthrie, a 48-year-old microbiologist and physician, attributed his special interest in developing the test to the PKU retardation of a relative in Minneapolis. A member of the pediatrics department of the School of Medicine of the State University of New York, Dr. Guthrie in 1958 received his first grants—$25,000 each, for 5 years—from the National Association for Retarded Children and the Association for Aid for Crippled Children. Later, he received a total of $75,672 from three other nongovernment sources.

But starting in 1959, the Public Health Service gave $251,700. Chiefly for the subsequent mass screening, the U.S. Children's Bureau granted $492,000.

FIRM IS NOMINATED

Long before the Bureau got into the picture, but after the test was perfected, Dr. Guthrie and the NARC agreed that a swift way to bring the test into the widest possible use would be to enlist a pharmaceutical firm with a worldwide organization.

The Ames Co., a subsidiary of Miles Laboratories of Elkhart, Ind., was nominated by Dr. Guthrie because it had been marketing a urine test for PKU. That test, however, is not well suited for mass use.

A lawyer friend of Dr. Guthrie, Raymond K. Kuhns of New York City, who was donating his legal services, advised that a patent on the invention be sought. He was concerned with the possibility that the plan for mass use of the test could be jeopardized by another patent only with costly, protracted litigation.

Almost a year had gone by since Dr. Guthrie had published articles about the test. This meant that unless a patent application were filed quickly, Dr. Guthrie's claim automatically would be denied.

Kuhns said that Miles Laboratories, which had accepted an invitation to participate, agreed with him in emphasizing to Dr. Guthrie that any proposed patent agreement would have to be approved by the Public Health Service.

BARS ROYALTIES FOR SELF

This is the kind of thing—questionnaires, redtape—that Dr. Guthrie scorns. His scientific work preoccupies him. Not until almost a year after the PHS began pressing him with letters and phone calls did he get around to filing the required reports.

The patent application and licensing agreement, which meanwhile had been drawn up by an associate of Kuhns on a nonprofit basis, put title in the name of Dr. Guthrie, but at his request barred him from getting a cent in royalties.

Instead, Miles, which was made the exclusive licensee, agreed to pay 5 percent of the net proceeds of sales to the NARC. Ultimately, that association got $1,100.

During the discussions, no one thought to ask what price Miles intended to charge.

In 1962, the patent application was filed and the licensing agreement signed. At about that time, the Children's Bureau announced its plans to screen the 400,000 infants. A great many test kits had to be produced, and quickly.

TURNS PRODUCTION MAN

Miles was unable to gear up fast enough for this job because of what Vice President [illegible] tion problems. So Dr. Guthrie, who was not, as Kuhns put it, "in any remote sense a businessman," became a production man.

With bureau funds, he rented a house, and in it, in a year's time, turned out 10,000 kits, enough for a million tests. Packaging was done by retarded young adults.

Ames, the Miles subsidiary, "took what we had done and repackaged it," Dr. Guthrie said. "The big price then particularly made no sense."

The "big price" as $262 for a 500-test kit that the scientist produced for $6. He had not known what the price would be until June 1963, when he visited Miles. "I was horrified," he said.

He pointed out that since the Government made his invention freely available, commercial laboratories—including Miles—have offered the kit for a fraction of its original price.

The Miles official, Orr, suggested that one reason for the $262 price was the need to use only the highest quality sterile materials. However, he acknowledged that he did not intend to imply that his firm's test kit was superior in that regard to Dr. Guthrie's. He did, however, fault the scientist's definition of costs.

NULLIFICATION BEGINS

In the Department of Health, Education, and Welfare, a drive began to nullify the agreement with Miles. One who urged this was Herschel F. Clesner, inventions coordinator for the PHS.

On November 5, 1963, the chief of the Children's Bureau, Katherine B. Oettinger, wrote Clesner "that the granting of exclusive commercial rights to Miles Laboratories would prevent Massachusetts and some of the larger States now contemplating setting up this screening from carrying out their plans."

"None of these States could afford to institute a program if they had to purchase the kits commercially at the contemplated ($262) price, or if they had to pay royalties on the materials they would manufacture themselves," she said.

A year ago, the Acting Surgeon General of the PHS, Dr. David E. Price, officially determined that the contract should be canceled because "the best interests of the public will not be served by * * * an exclusive license. * * * Insofar as the invention may be patentable, the equitable ownership of all rights, both domestic and foreign, shall be in the United States."

Mr. YARBOROUGH. Mr. President, this product to determine whether a child was suffering from mental retardation, was discovered with the use of public moneys. Later, a private company charged $262 for one unit of a test in testing infants to see if they had an ailment that would cause mental retardation.

Since the Attorney General of the United States has reclaimed the product, the cost for a kit is now $6 for the test kit to be used. The cost of $262 for a kit to test to discover whether newborn babies had an ailment that would cause mental retardation all their lives was cut to $6 a kit, and the cost of the test per baby was cut from 50 cents a baby to 1.2 cents a baby. The overcharge had been 40 times the real cost.

Mr. HILL. Mr. President, will the Senator yield?

Mr. YARBOROUGH. I shall yield on the Senator's own time.

Mr. HILL. Mr. President, the statement of the Senator should be accurate. It was the U.S. Public Health Service which stopped the profiteering.

Mr. YARBOROUGH. The Senator is correct. It was a part of the U.S. Government which stopped the profiteering. The private companies were claiming the discoveries as private patents and they had the assistance of a university. They were charging $262 for a unit of medicine with which to test babies to prevent severe mental retardation, when $6 was the final cost per unit established. The private drug company was more interested in a 40-fold profit than in whether mental retardation was to be prevented.

When we got that test back in the public domain to be used for the public, who had paid for the discovery, the cost was reduced to $6 per unit, or 1.2 cents per baby. The question at issue is whether we should allow a private monopoly to charge $262 for a test kit to be used with babies, or allow the people to charge whatever they want to charge with their own discoveries.

Any person or company can charge whatever they like if they discover something with their own money. But the Long amendment question does not deal with private moneys. This Long amendment deals with public funds, with public moneys taken from the pockets of all the taxpayers in the United States.

I ask every Senator to search his conscience and see whether he can vote to give away such patent rights when human pain is involved. This is different from the NASA. This is very different from the issue which arose in the case of NASA, when the NASA directors wanted to give the patents away. We vote $6 billion a year to space exploration, and we hope they make great discoveries. The NASA authorities worked to keep the authority to give away patent rights to those amply paid to do Government research on space problems.

By throwing their weight in and fighting for the giveaway the NASA authorities were able to beat the opposition down and to defeat those defending the public interest. But this time we are dealing with human pain; we are dealing with ill people on earth, not researches in space. When a means of relief from human pain and illness is discovered as a result of the expenditure of public money, are we going to make it available for the average person to buy or are we going to permit a monopoly to delay the general use for 3 or 5 years, and then charge exorbitant prices? That is the question involved.

Mr. LONG of Louisiana. Mr. President, will the Senator yield?

Mr. YARBOROUGH. I yield.

Mr. LONG of Louisiana. The Senator is absolutely correct. We want the Public Health Service and the Department of Health, Education, and Welfare and the National Institutes of Health to protect the public interest, just the same as these fine people did in this case.

I have some other examples to give, and I will give them before the debate is over. The National Institutes of Health is honeycombed with people who want to be able to patent and sell certain products to private companies so the monopolies can sell them for 10 to 30 times what they would be otherwise sold.

The PRESIDING OFFICER. The time of the Senator has expired.

Mr. LONG of Louisiana. I yield the Senator 2 additional minutes.

Mr. YARBOROUGH. This has been a subject for considerable discussion in university circles and the role of universities in this medical research. The governing officials of our universities should search their consciences. Do they want to protect the people's rights, or, in return for an endowed chair, do they think it is worth giving away the public interest? Is an endownment more to be treasured that the protection of the people's rights? Do the humanities teach that we surrender monopoly patents on discoveries to alleviate human pain, discoveries made with public moneys? The university community of America should ask itself some soul-searching questions on its position concerning proper use of the proceeds of these public funds.

Mr. LONG of Louisiana. I have checked this question over the weekend. The best information I can get is that not one of the associations representing universities has taken a position on this issue. From what I understand, two-thirds of the universities have not taken a position, and of the one-third that have taken a position, the great majority of them recognize that discoveries made as a result of using public funds in the area of public health should be placed in the public domain.

Mr. President, I wish to state my strong support for the broad purposes of this legislation. One of the great problems facing the health professions is how best to make use of all the knowledge which is being discovered every year through research. How do we get the message out to the doctors in small towns and in rural areas? Through this bill we will construct regional medical complexes consisting of medical schools and hospitals in association with research centers and treatment stations working on heart disease, cancer and stroke. These dread diseases are our big killers, and it is vital to the improved health of our citizenry that we make use of the new knowledge which is constantly being discovered.

This being the purpose of the legislation, it is important that the information discovered through funds authorized by the bill be made freely and fully available. The amendment offered by the distinguished Senator from Louisiana [Mr. LONG] provides just this. It says very simply that—

No part of any appropriated funds may be expended pursuant to authorization given by this act for any scientific or technological research of developmental activity unless such expenditure is conditioned upon provisions effective to insure that all developments resulting from that activity will be made freely available to the general public.

In the difficult area where both public and private funds have been spent on the research leading to a discovery, the amendment provides a limited exclusive licensing arrangement for no longer than 3 years if the private company is justified in receiving such an exclusive right upon equitable considerations related to [illegible] financial contribution and, if such an arrangement will affirmatively and substantially promote the utilization of the development and the interests of public health or welfare within the United States.

Mr. President, this amendment is fair to the interests or private contractors. It protects the public interest. Why is it being so stoutly resisted? The answer, in four words, is: "The manufacturers of drugs."

This is not the first time Congress has had to deal with the fantastic lobbying strength which this segment of the manufacturing industry can muster. We still remember the gallant fight which our late, beloved colleague from Tennessee, Senator Kefauver, led to effectively moderate some of the excesses of this segment of the manufacturing industry.

Figures turned up by Senator Kefauver showed that the drug manufacturing industry has shown the highest profit rate on investment of any industry in the land. The unbelievable profits of the big drug manufacturing companies are often the result of Government imposed restrictions on competition and indirect Government subsidies. But to the drug manufacturing companies this is not enough. They eagerly importune the Federal Government to finance much of their costs of research and development—but they demand that they be entitled to preempt for themselves the fruits of the research financed by the citizens of our country.

At the present time Federal funds are used in this industry to finance research and development in three major ways. Although it is virtually impossible to estimate the value of these Federal contributions, it probably runs to hundreds of thousands of dollars a year. In the first place, research conducted by governmental agencies, such as the National Institute of Health, occasionally yield new drug products. In 1961, for example, NIH reported the development of a new and potent synthetic painkilling drug, available under the trade name Prinadol. This new analygesic has a more powerful painkilling action than morphine; yet it is free from many of the undesirable side effects caused by morphine. Products such as this, in turn, are made available for commercial exploitation, usually on an exclusive basis, to a major drug company. This is necessary when new uses are found for old drugs on which the patent has expired, when sales are to be made to the Government, or evidence of safety and utility must be provided.

Finally, Federal funds support similar testing carried on by private hospitals as well as by State, county, and municipal hospitals. This money, which is in the form of grants from NIH, helps to defray for individual drug companies the expense of clinical testing carried on in such hospitals.

In addition to forthright financial aid, the Federal Government has provided a number of important protections and benefits to the U.S. drug manufacturing industry. The Federal Government gives exceptionally favorable tax treatment for expenditures on research and development which can be treated as either a business expense or can be capitalized and amortized over a period of years. Moreover, this type of treatment can be extended to many types of expenditures which are only distantly related to research, as usually conceived.

Further, most people are not aware of the great service rendered by the Federal Government to the big manufacturing drug companies with respect to the new drug applications which must be filed and approved by the Food and Drug Administration before any drug can be put on the market. These applications must be supported by extensive clinical testing which costs from $50,000 to $100,000 and up. Under the FDA's regulations, which are not required by law, the smaller drug producers who wish to sell a drug already on the market must duplicate the clinical testing which has already been approved by the FDA. According to small drug producers, the effect of this requirement is to prevent them from competing with their larger rivals on products which are not patentable or on which the patent has expired.

Of course, the most important protection extended to the industry by the Federal Government is the patent. It is often forgotten that the Constitution makes the granting of patents permissive, not mandatory. And on drugs this country has seen fit to grant the most extreme form of patent protection possible. With the exception of Belgium, it is the only developed, industrialized country which grants both process and product patents on drugs, does not provide for compulsory licensing, and imposes no price controls. Other countries, including many which have been noted for their development of new pharmaceutical products—for example, Germany, France, and Switzerland—have sought to provide some protection to the consumer. This attitude stems from the strong moral conviction that no one should have the right to withhold from the sick and ailing a product which spells the difference between sickness and health, life and death. But while granting to the drug manufacturing industry vast sums of money and a myriad of protections, the U.S. Government has extended no comparable protection to the American public. The drug manufacturing industry is being allowed to make tremendous profits at the expense of the taxpayers.

Spokesmen for our drug industry would have you believe that they are the only people who have ever discovered any drugs. The facts are otherwise.

Countries like Germany, France, and Switzerland, which grant patents only on processes and not on drug products, have been in the forefront in drug discoveries. Even in the past 20 years, many of the important discoveries have emanated from abroad. Oral antidiabetic drugs, for example, are the German development, although some Americans later developed molecular modifications of the original German compounds. Tolbutamide, sold by Upjohn under the trade name Orinase, was developed by Hoechst Co., of Germany, and is the largest selling oral antidiabetic drug in this country. Percent tranquil-

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rs used in our mental hospitals are a French development. Thorazine and Compazine, the biggest selling potent tranquilizers to mental institutions in this country, are exclusively licensed to Smith, Kline & French by the French company which originated the compound. An additional example is the development of drugs designed to alleviate motion sickness. Searle, a U.S. company, developed Dramamine and has a patent monopoly. On the other hand, the competing product sold only by Pfizer is a Belgian development. The Belgian firm granted an exclusive license to Pfizer for sales in the United States.

In his fascinating, best-selling book on the Kefauver drug investigation, "The Real Voice," Richard Harris notes that at one of the hearings, a noted professor of pharmacology testified that "far from leading in drug progress, it appears that our industry has usually followed and often after a clear lag." Harris goes on to note that the doctor did "give the United States credit for the discovery of cortisone and other cortical steroids, and for anticoagulants, hydrazides, anterior pituitary hormones, antithyroids, and oral diuretics, but he went on to say that 'most of the progress—in drug research—has come from European and British researchers, both industrial and independent.' Foreign researchers, he added, had discovered the antihistamines, synthetic morphine substitutes, new antimalarials, synthetic estrogen, almost all of the tranquilizers, oral antidiabetics, and penicillin, the ancestor of all the other antibiotics. The purpose of much of the work done by American drug firms, Dr. Meyers asserted, was 'partly to exploit and market' these foreign products but 'mostly to modify the original drug just enough to get a patentable derivative'."

The American public is paying for this vast research effort. And the American people should not be deprived of the resulting benefits. New drugs discovered with the aid of public money have been withheld from the public entirely, or were offered only at outrageous prices. I am not contending that the various forms of Federal aid be curtailed. I am for this Federal research. I am, however, insisting that those who pay for the research should be its beneficiaries. It is most unbecoming for the Government of the United States to accede as a matter of policy to any private interest, group, or industry. The very belligerence of the drug manufacturing industry that it will conduct research financed by the Federal Government only on its own terms is the strongest possible argument that can be advanced in support of Senator LONG's amendment.

The PRESIDING OFFICER. The time of the Senator has expired.

Mr. LONG of Louisiana. I yield 1 additional minute to the Senator from Texas.

Mr. YARBOROUGH. I ask unanimous consent to have 3 additional minutes.

Mr. LONG of Louisiana. I yield 3 additional minutes to the Senator from Texas.

Mr. YARBOROUGH. We heard the statement made last Friday that the floor of the Senate is no place to legislate. If the floor of the U.S. Senate is no place to legislate, why in God's name do we have it? The criticism we hear around the country is that decisions are made in smoke-filled rooms or in the little groups of subcommittees, and that the Senate has lost its savor, and fails to legislate. Let us legislate on the floor of the Senate, let us take this bill out into the light of day, and let the American people see how we legislate. It is time we legislated on the floor of the Senate if the fruits of $650 million of the people's research money is going to be given away to private monopolies which are already paid in full, with profit, for the research done.

The PRESIDING OFFICER. The time of the Senator has expired.

Mr. LONG of Louisiana. Mr. President, I yield such time as is necessary for me to propound a question and for the Senator to reply.

The Senator from Texas has discussed some of the drugs developed in Europe. The Senator is aware, is he not, that when some of the products are made available to American drug companies through a license, the American company receives much greater protection than the European company, enabling the American company to charge a higher price than is permitted in the European countries?

Mr. YARBOROUGH. Exactly.

The purpose of the Long amendment is to permit the results of the research made with the people's money to be made available to the people. By adoption of the Long amendment the discoveries will be made available to the people much faster than if they are given to private monopolies.

I regret that there is no single representative of the other side of the aisle on the floor today. Maybe they do not want to listen, and then vote against the Long amendment. There was a time when Republicans like Borah, Norris, McNary, and La Follette stood up alone fighting to protect the public interest when the minority which then was on our side of the aisle was not fighting to protect the public interest. I hope, whichever way the vote goes, that the majority of Senators on this side of the aisle will not vote to give away the public interest. I hope the great majority of the Democrats will cast their votes for the Long amendment.

It is not a restrictive amendment on research, and will not delay research.

This amendment has been watered down to meet the approval of the department concerned. It was amended after long discussion, to meet the approval of the Department of Health, Education, and Welfare, and did meet its approval.

What secret forces are applied to them to make the American Cancer Society and the American Heart Institute change their position, because they have been doing exactly that when they agreed to the changed Long amendment. They have now reversed themselves. Why?

Mr. President, I ask unanimous consent to have printed in the RECORD the wording of the Long amendment.

There being no objection, the amendment was ordered to be printed in the RECORD, as follows:

On page 12, line 4, immediately after "SEC. 906.", insert the subsection designation "(a)".

On page 12, between lines 11 and 12, insert the following:

"(b) (1) No part of any appropriated funds may be expended pursuant to authorization given by this title for any scientific or technological research or developmental activity unless such expenditure is conditioned upon provisions effective to insure that all developments resulting from that activity will be made freely available to the general public. The Surgeon General shall include in each grant or contract made or entered into under such authorization for any such activity provisions under which the United States will acquire exclusive right in and to any such development. Nothing contained in this paragraph shall be construed to deprive the owner of any background patent relating to any such activity, without his consent, of any right which that owner may have under that patent.

"(2) The Surgeon General may enter into an agreement with any charitable public health organization for the equitable disposition (for such period not exceeding three years as the Surgeon General may prescribe) of proprietary interests in any development which has been made through research or developmental activity for which such organization has made substantial financial contribution if the Surgeon General determines with the concurrence of the Attorney General, after according to all interested parties an opportunity for public hearing upon such proposed agreement, that such agreement will affirmatively advance the interests of public health. Each such agreement shall be subject to the provisions of paragraph (4) of this subsection.

"(3) Any grantee or contractor who has made any development in the performance of any obligation incurred under any grant or contract made or entered into subject to the provisions of this subsection may apply to the Surgeon General for the transfer to him of exclusive right (except against the United States or any Federal, State, or local governmental entity) to exploit such development for commercial purposes for such period (not exceeding three years) as the Surgeon General may prescribe. Before any such transfer is made, the Surgeon General shall comply with the requirements hereinafter set forth in this paragraph. The Surgeon General shall cause to be published in the Federal Register notice of the making of such application and a full and complete statement concerning the circumstances under which that development was made and the justification asserted by the applicant for such transfer. At such time (not earlier than 30 days after such publication) as the Surgeon General shall prescribe in such notice, opportunity for a hearing on the record upon such application shall be accorded under such regulations as the Surgeon General shall prescribe to each person who would be affected thereby, including any State or local government and any representative of an organization or segment of the public legitimately concerned therewith. Upon the basis of evidence received in such hearing, or if no such hearing has been requested upon the basis of such evidence as the Surgeon General shall obtain by full and complete investigation and preserve as a public record for not less than five years, the Surgeon General may transfer the proprietary interest for which application was

ade or any lesser proprietary interest to the applicant if the Surgeon General determines, with the concurrence of the Attorney General, that the making of such transfer—

"(A) is clearly justified upon equitable considerations by the contribution made or to be made by the applicant to such development apart from the financial contribution made or to be made thereto by the United States;

"(B) will affirmatively and substantially promote the utilization of such development and the interests of public health or welfare within the United States; and

"(C) will not result in or contribute to any material restraint of the interstate or foreign commerce of the United States.

"(4) Each transfer under paragraph (2) or paragraph (3) shall be made subject to—

"(A) the termination thereof at any time at which the Surgeon General determines that the recipient thereof has failed without adequate justification to (i) take prompt and effective action to bring the development to the point of practical application, or (ii) make the development available, upon terms and conditions determined by the Surgeon General to be reasonable, for use or exploitation by other parties within the United States for public benefit; and

"(B) such other terms and conditions as the Surgeon General shall determine, and specify in making such transfer, to be required for the protection of the interests of the United States.

"(5) The Surgeon General shall transmit to the Congress annually a full and complete statement concerning—

"(A) the identity of the recipient of each transfer made during the preceding calendar year with respect to any proprietary interest in any development subject to the provisions of this subsection;

"(B) the terms and conditions under which each such transfer was made;

"(C) the facts and circumstances relied upon in justification for the making of each such transfer; and

"(D) the use which has been made of all developments with respect to which such transfers have been made under this subsection at any time before the date of such report.

"(6) Whenever any development resulting from any research or developmental activity conducted in whole or in part with appropriated funds expended under authorization of this title or any proprietary interest in any such developments is withheld or disposed of by any person, organization, or agency in contravention of any provision of this subsection or any condition imposed pursuant to this subsection, the Attorney General shall institute, upon his own motion or upon request made by any person having knowledge of pertinent facts, an action for the enforcement of such provision or such condition in the district court of the United States for any judicial district in which any defendant resides, is found, or has a place of business. Such court shall have jurisdiction to hear and determine such action, and to enter therein such orders and decrees as it shall determine to be required to carry into effect fully such provision or such condition. Process of the district court for any judicial district in any action instituted under this paragraph may be served in any other judicial district of the United States by the United States marshal thereof. Whenever it appears to the court in which any such action is pending that other parties should be brought before the court in such action, the court may cause such other parties to be summoned from any judicial district of the United States.

"(7) As used in this subsection—

"(A) the term 'development' means any information, copyrightable material, use, process, invention, patent, improvement or innovation resulting from scientific or technological research or developmental activity; and

"(B) the term 'charitable public health organization' means any organization described in section 501(c)(3) of the Internal Revenue Code of 1954 which (i) is exempt from taxation under section 501(a) of such Code, (ii) derives its income wholly or chiefly from charitable contributions made by the public at large, and (iii) expends its revenue chiefly for the promotion of public health or the alleviation of human suffering arising from floods, earthquakes, fires, explosions, and similar disasters affecting residents of the affected areas."

Mr. YARBOROUGH. Mr. President, I ask unanimous consent to have printed in the RECORD, because time will not permit my reading them, letters received just a few days before hearings were held in the Public Health Subcommittee, of which I am a member, from both the American Cancer Society and the American Heart Institute, approving the Long amendment, and then, a day or two before we voted, telegrams received from them reversing their stand.

There being no objection, the letters and telegrams were ordered to be printed in the RECORD, as follows:

AMERICAN CANCER SOCIETY, INC.,
New York, N.Y., April 30, 1965.

BENJAMIN GORDON, Esq.,
Select Committee on Small Business,
U.S. Senate, Senate Office Building,
Washington, D.C.

DEAR MR. GORDON: The American Cancer Society and I wish to express our appreciation for the courtesy and attention to our problems in the area of the multiple support of research that you and the legislative staff for Senator LONG have extended. We are particularly grateful that the proposed amendment No. 14 to Senator LONG's amendment to bill S. 512 recognizes the different status of charitable public health organizations and preserves their proprietary interest in the results of research developments under which they have made substantial financial contributions.

In accordance with our discussions, it is understood that, in presenting this amendment, statements will be made for purposes of legislative history indicating the intent that this exception will be made automatically operational and effective by providing that the determination of the Secretary of Health, Education, and Welfare will be prompt and that the Attorney General's approval will also be promptly furnished. Also, unless objections or unusual problems are raised, hearings will normally not be held or required.

It was also discussed, and we believe sufficiently important, that the legislative history of Senator LONG's proposed original amendment make clear that the requirements for information and other details will not in any way include material which would be contrary to, or interfere with, the established doctor-patient relationship which might underlie some of the research activities.

Thank you again for the cooperation and understanding that you have shown. We feel that these proposals will resolve a troublesome problem which otherwise would have had an adverse effect upon the progress of medical research in fields of vital importance to us all.

Sincerely,

FRANCIS J. WILCOX,
Chairman of the Board.

AMERICAN HEART ASSOCIATION, INC.,
New York, N.Y., April 29, 1965.

MR. BENJAMIN GORDON,
Select Committee on Small Business,
Senate Office Building,
Washington, D.C.

DEAR MR. GORDON: We are most grateful and appreciative of your good offices in assisting in the preparation of an amendment to Senator LONG's amendment to Senate bills Nos. 512, 596, and 597.

The attached has been reviewed by our president, Dr. Carleton B. Chapman and Dr. James V. Warren, the chairman of our legislative advisory committee and we feel that in our combined judgments this represents a very satisfactory solution to our problem. We hope Senator LONG will consent and be willing to consider this as an amendment to his present amendments to the Senate Bills.

Again may we express our thanks to you and through you to Senator LONG for consideration in this matter.

Sincerely yours,

ROME A. BETTS,
Executive Director.

NEW YORK, N.Y.,
June 3, 1965.

Senator LISTER HILL,
Chairman, Labor and Public Welfare Committee, U.S. Senate, Washington, D.C.:

The American Cancer Society noting the current sentiment of the Senate regarding the policy on patents growing out of Federally sponsored research would like to request favorable consideration of S. 512 without inclusion of any amendments on patents which were added to the original draft of the bill as it was introduced on January 15, 1965.

HAROLD S. DIEHL, M.D.,
Senior Vice President for Research and Medical Affairs.

NEW YORK, N.Y.,
June 4, 1965.

Senator LISTER HILL,
Senate Office Building,
Washington, D.C.:

American Heart Association concurs in Senate action defeating Long amendment on patent rights June 2. The association is hopeful that this important matter may now be resolved within the Judiciary Committee on an equitable basis since the association has major interest in the solution of this problem.

ROME A. BETTS,
Executive Director,
American Heart Association.

Mr. YARBOROUGH. Mr. President, had the objections of the Senator from Rhode Island [Mr. PASTORE] been valid, that we should not legislate originally on the floor of the Senate, in the sense of taking up for the first time on the floor of the Senate some amendments or measures not considered in the subcommittee, it would not apply to the Long amendment, because the Long amendment was considered by the subcommittee and by the full committee, and I filed individual views on it.

Mr. President, I ask unanimous consent to have printed in the RECORD, from Senate Report No. 368 on the bill, the individual views which I set out in that report.

There being no objection, the individual views were ordered to be printed in the RECORD, as follows:

INDIVIDUAL VIEWS OF MR. YARBOROUGH

While I enthusiastically support the broad purpose of this legislation, I feel that the bill would be greatly improved by the inclusion of a requirement that the results of research

which is financed by public funds authorized under this act be made freely available to the general public. If the public pays for the research they should be entitled to the results of it. No private citizen should be allowed to acquire monopoly patent rights to the results of research which is financed with public funds.

In the case of research which is financed partly with public funds and partly with private funds, provision should be made for the granting of an exclusive right to the private researcher for a limited period of time (for instance, 3 years) if such a right is justified upon equitable considerations by the financial contribution made by the private researcher and if the action will promote the utilization of the development and the interests of the public health and welfare in the United States.

Through such a provision, the public interest would be safeguarded at the same time that the rights of private researchers were recognized.

I commend the Department of Health, Education, and Welfare for their efforts in the past to protect the public interest. I feel, however, that specific legislation is desirable in order to make clear the intent of Congress in the use of public moneys for research, and to insure that the public interest be safeguarded by law.

RALPH YARBOROUGH.

Mr. LONG of Louisiana. Mr. President, will the Senator from Texas yield?

The PRESIDING OFFICER (Mr. YOUNG of Ohio in the chair). Does the Senator from Texas yield to the Senator from Louisiana?

Mr. YARBOROUGH. I yield.

Mr. LONG of Louisiana. Let me compliment the Senator from Texas for the magnificent fight he has always made to protect the public from monopolistic exploitation. During the time I have had the opportunity to serve in the Senate, I have observed that the Senator has been 1,000 percent consistent whenever a fight developed between the interests of the public and the interests of a small minority who would victimize the public. The Senator from Texas has never been found wanting in that regard.

Mr. YARBOROUGH. Mr. President, I thank the Senator from Louisiana for his generous comments. I commend him also. The people of the United States are fortunate in having a man of his caliber serving on committees with the dedication which he has always shown to the people of the United States.

Mr. President, this country is enjoying a period of high prosperity. The history of the country shows that during a period of high prosperity, when everyone is doing well, the Government sometimes gets careless.

During those periods of high prosperity we find the greatest giveaways of the public's rights by the Government, merely because people have become so prosperous they are not paying much attention to what the Government is doing.

Today, I hope that we will pay attention, and secure for the people the right to obtain early use of valuable drugs that might be discovered with public moneys. The Long amendment is only for the purpose of protecting the public interest in the public's money, and the fruits of its use. This is not a limitation upon private rights. Every private researcher or explore, at his own expense, and keep all his findings for himself.

The Long amendment is written in such a way as to give a firm the exclusive right to use a discovery for a limited number of years, if they have contributed to that discovery. If they make the discovery by themselves, they have an unlimited right. And if they add their moneys or their patents to the Government moneys, they share the fruits of the research. It is a fair amendment to researchers and manufacturers.

It has been pointed out that American drug manufacturers can both produce and market exclusively, something drug companies cannot do in most of the countries of the Western World. This bill, which I strongly support with or without the Long amendment, will aid in bringing about discoveries which are badly needed by humanity, especially in the ailments which today kill more Americans than all other ailments combined.

Mr. President, I yield the floor.

Mr. LONG of Louisiana. Mr. President, I suggest at this time, because there are few Senators in the Chamber, that Senators who wish to speak in opposition to the amendment who have used a smaller amount of time than we have—I believe they have used no time except 5 minutes for the calling of a quorum—speak at this time.

I believe that the side which offers the amendment, by tradition, is entitled to close debate. We have used 32 minutes out of 60. Inasmuch as we are entitled to close debate on the amendment, I urge that Senators who wish to speak against the amendment proceed at this point.

Mr. KENNEDY of Massachusetts. Mr. President——

Mr. HILL. Mr. President, I yield 10 minutes to the Senator from Massachusetts [Mr. KENNEDY].

The PRESIDING OFFICER (Mr. GORE in the chair). The Senator from Massachusetts is recognized for 10 minutes.

Mr. KENNEDY of Massachusetts. Mr. President, I claim no special knowledge in the area of patent policy, nor do I have, or represent, any vested interest other than my concern for health matters. I do have the most profound respect for each of my colleagues who are actively involved in this debate. Senator MCCLELLAN, as chairman of the Patents, Trademarks, and Copyrights Subcommittee of the Judiciary Committee is an authority in this area, and I feel his views cannot be lightly dismissed on any question concerning patents. Senator LONG is one of the most dedicated and sincere Members of this body and I often am in sympathy with his views on matters of basic social interest. His concern with the disposition of patent rights where public funds are involved is to be commended. I completely support his motives and desires in this area, and his fight for the protection of the public interest will, I am convinced, yield the results he seeks. I shall support him in a major effort for sound, all-inclusive legislation—but I cannot support ad hoc amendments in the complex area of patent policy. And Senator LISTER HILL is the undisputed leader of the Senate, indeed of the entire Congress, in matters relating to the health and well-being of the country. I have nothing but the most profound admiration for the work of this Senator over the years—work that has directly resulted in unprecented advances against the causes and accompanying misery of disease and illness. The position of Senator HILL on this amendment should be of the greatest signifiance to all of us.

The issue before us is whether there should be a national patent policy or whether each piece of major legislation should be amended to provide different policies for each agency or program. The issue is not the pricing practices of the drug industry.

We now have a presidential patent policy that was developed over a period of 20 months or more. This policy has worked well. We have not been informed of any abuses under this policy in general, and as regards the Department of Health, Education, and Welfare, Senator LONG has stated that he has no quarrel with their use of their patent authority. Referring to HEW, Senator LONG stated on Friday that "I am in support of the position that it has followed."

So what we are concerned with here is the necessity at this time to amend various pieces of health legislation when we are not confronted with an immediate need. We are asked to do this even though Senator MCCLELLAN'S Subcommittee on Patents is conducting hearings on bills that would create a national patent policy. These hearings will, I am sure, produce the protections in this area that Senator LONG is asking for and the protections that I support. But this will be done after a full opportunity is had to consider our national patent policy. This will not only assist Members of the Senate to reach an informed opinion but will also create less disruptions in the research field. I have been informed by research men that I highly respect from my State that the amendment procedures currently being employed on patent policy could seriously affect the cooperation between private industry and university and medical researchers. These people do not know what future policy will be, for the amendments that are offered are often changed and their effects are never fully discussed. As a result, private researchers in industry are not anxious to accept any assistance from institutions supported by Federal funds, and this assistance would in many instances speed up the development of vaccines and drugs that are urgently needed.

Mr. President, in the area of patent policy and health we should be absolutely sure of what we are doing. The problem of preserving initiative in research while protecting the public interest cannot be solved in a day's debate on the Senate floor.

We have the time to consider our patent policy. A respected member of the judiciary committee—Senator MCCLELLAN—is currently holding hearings on this subject, and we are assured that the existing presidential policy is working well under the current administration of

the Department of Health, Education, and Welfare.

If this policy is to be changed and put into law, we should do that through the Patent Subcommittee, and not by a piecemeal approach through an amendment process. The fact that we do not act today does not mean that we can never act. It does mean, however, that when we do legislate we will be fully informed and aware of the effects of our actions.

Mr. President, I therefore will support the Senator from Alabama [Mr. HILL], the Senator in charge of the bill, in opposing the Long amendment.

Mr. President, I yield the floor.

Mr. MANSFIELD. Mr. President, I suggest the absence of a quorum, and ask unanimous consent that the time for the quorum call be charged to the time of the Senator from Alabama [Mr. HILL].

The PRESIDING OFFICER (Mr. BREWSTER in the chair). Without objection, it is so ordered. The clerk will call the roll.

The legislative clerk proceeded to call the roll.

Mr. MANSFIELD. Mr. President, I ask unanimous consent that further proceedings under the quorum call be dispensed with.

The PRESIDING OFFICER (Mr. HARRIS in the chair). Without objection, it is so ordered.

Mr. HILL. Mr. President, I yield to the distinguished Senator from Missouri as much time as he desires.

The PRESIDING OFFICER. The Senator from Missouri is recognized.

Mr. SYMINGTON. I thank the able and distinguished Senator from Alabama for yielding.

Mr. President, I have followed these discussions with interest and care: I have nothing but commendation for the distinguished Senator from Louisiana [Mr. LONG] in respect to his position on the issue. He believes that he is protecting the rights of the Government, and therefore of its citizens.

When a similar amendment came before the Senate during the discussion of patents incident to space developments in this country, many of the business people, those who have and do not have relationships with NASA, felt that the amendment would be an infringement on their basic rights under the capitalistic system.

That included small companies as well as large companies.

This morning I received three telegrams from three universities of my State. The first comes from the University of Missouri, one of the institutions of learning mentioned on the floor of the Senate previously by the distinguished chairman of the committee in question. The telegram reads as follows:

> I hope the Russell Long amendment on patents will not be added to any appropriations for research. In our view it would damage all universities research programs. The subject needs far more study.
>
> ELMER ELLIS.

The second telegram comes from the Reverend Jerome Marchetti, S.J. It reads:

> We oppose proposed amendment whereby patent rights in sponsored research in medical field become property of government.
>
> REV. JEROME L. MARCHETTI, S.J.,
> *Acting President, St. Louis University.*

The third telegram, signed by Thomas H. Eliot, chancellor of Washington University, reads:

> On behalf of Washington University I urge you to oppose the Long amendment to the health, education, and welfare bill scheduled to be voted upon at noon on Monday. Departure from the long tradition of patent law would be a grave mistake. Your existing patent laws on research and development has flourished and the Nation has benefited. Dealing specifically with universities these are not profit institutions and any patent royalties are spent by them for the public benefit, for our universities must strive if they are to provide good education for the swiftly increasing number of young Americans.
>
> THOMAS H. ELIOT,
> *Chancellor, Washington University.*

Mr. CARLSON. Mr. President, will the Senator yield?

Mr. SYMINGTON. I do not have the floor, but if the Senator from Alabama agrees, I shall be happy to yield.

Mr. HILL. Certainly.

Mr. CARLSON. I should like to associate myself with the remarks made by the distinguished Senator from Missouri [Mr. SYMINGTON] in regard to the pending Long amendment. I have received several communications from our State which are thoroughly in accord with the statements that have been read into the RECORD by the distinguished Senator from Missouri. I appreciate very much his taking the position which he has taken on the floor of the Senate today.

Mr. SYMINGTON. I thank the able senior Senator from Kansas for his remarks.

As one who has operated outside, and in the Government, I would worry about complete Government control from the standpoint of motive incentive in the arts as well as engineering. On the other hand, I realize that some interesting cases have been made on the floor of the Senate with respect to future policy in connection with this all-important subject, and commend the able Senator from Louisiana for his interest.

Mr. President, I hope that the Senate will accept the position taken by the senior Senator from Arkansas [Mr. MCCLELLAN] when he says that as soon as possible he will complete hearings on these measures now before his committee, and currently before the Senate. Then we can work out—and I would certainly hope so; I shall do my part to that end—a standard overall patent policy for the Government of the United States.

I thank the able Senator for yielding to me.

Mr. HILL. Mr. President, I yield to the distinguished Senator from Massachusetts [Mr. SALTONSTALL] 5 minutes.

Mr. SALTONSTALL. Mr. President, I thank the Senator. I have listened to the Senator from Missouri, and I am heartily in accord with what he has said. As I see it, there are three reasons why we should not support the amendment of the distinguished Senator from Louisiana, for whom I have a high regard. He is most persistent and energetic in anything that he undertakes.

My first reason relates to the number of differing patent policies that presently exist in the Government. If my memory serves me correctly, there are today 20 departments of the Government which are doing research of one type or another. We shall have 20 different policies if we follow the proposed procedure. Shall we proceed in such a manner, or shall we have a policy that will be thoughtfully worked out by the Senator from Arkansas [Mr. MCCLELLAN] and his committee?

The Senator from Arkansas [Mr. MCCLELLAN] has at least three bills on this subject before his committee at the present time. There is a bill which he introduced, a bill which the Senator from Louisiana introduced, and a bill which I introduced. There may be others. It is our mutual desire to work out a careful and thoughtful policy that will apply to all Government agencies. At the present time, if this job is done piecemeal on the floor of the Senate, we shall endanger one of the most important aspects of the American way of life. In the United States we have gone ahead in many different fields through individual initiative, individual imagination, individual patience, and willingness to work hard. We know that from such work we derive benefits through the discovery of patentable materials.

My second reason is based upon facts brought out in the debate on the question of patent rights disposition arising out of NASA research and development contracts. I am speaking from memory now, but I believe there have been approximately 4,400 contracts entered into by that agency since adoption of its recently revised patent waiver regulations. Out of these approximately 4,400 contracts, NASA, under Mr. Webb, has issued only 7 waivers at the time of contract negotiation.

Mr. LONG of Louisiana. Mr. President, will the Senator yield?

Mr. SALTONSTALL. I yield.

Mr. LONG of Louisiana. I should be glad to use some of my time in order that I might ask a question.

The Senator has spoken about seven waivers that were granted prior to anyone knowing what might be discovered under those contracts. The Senator would find that a great number of additional waivers were granted and are being granted on discoveries after they are made. I suspect that they are being granted on the very best things that NASA is discovering, with applications for waiver being made after the discovery is made.

So what the Senator from Massachusetts is talking about is only what NASA is doing in ways which I believe directly violate the law. That is what the Department of Justice advised the agency some years ago. They did not have the right to waive those rights prior to knowing what might be developed. Their

lawyers testified before us that they did not think they had the power to do it.

I am opposed to waivers after a discovery is made. But in my judgment, waiver before discovery is a direct violation of law. Their own lawyers testified as much before my subcommittee. They said that waivers should not be made without the parties even knowing what would be discovered.

Mr. SALTONSTALL. I think the Senator for his observation. I believe that the issue as to who should receive patent rights under research and development contracts should be determined, generally, at the time a contract is negotiated. The parties should know their rights at that time. In the bill that I introduced, we tried to deal with patent rights disposition in that way. The Government would have the responsibility for making the decision at that time. If a mistake is made, or if conditions change, the Government would have the authority to revise its commitment.

It was not my intention to deal with this particular subject, but I wanted to cite this as an example.

My first reason, then, is that there should be an overall general policy governing patent rights disposition under Government research and development contracts. This is preferable to a hit-or-miss policy adopted through the amendment procedure.

My second argument is, as I sought to bring out the other day, that if there is to be a patent policy established under a health bill, this is not the bill on which to do it. As I understand, from a reading of the committee report—and that is all that I am familiar with—it would be mostly Government money that would be used for construction in one form or another, with little to be used for research.

My third reason is based upon insuring progress in our way of life. The best way to accomplish this is by encouraging individual initiative.

The PRESIDING OFFICER. The time of the Senator from Massachusetts has expired.

Mr. HILL. I yield an additional 2 minutes to the Senator from Massachusetts.

Mr. SALTONSTALL. I well recall an interesting evening some years ago when I, together with several others, had dinner with Dr. Fleming, the discoverer of penicillin. He told us that his discovery of penicillin was incidental to work he was performing on another subject. The side issue was continually coming up. Finally he concentrated on the side issue and in that way discovered penicillin.

Is it proposed to take away from a great scientist, a great doctor, a great medical man, the rights to a discovery that is his entirely? I do not believe any doctors take patent rights anyway. I do not know whether Dr. Fleming ever received anything from the discovery of penicillin. But such a person, who may be working on an entirely different issue, although supported by Government money, should not have taken away from him rights he may ultimately derive as [illegible] I do not believe that is wise, unless based upon one general policy.

For all these reasons, I hope that the amendment of the Senator from Louisiana will be rejected. Then the Senate can go forward to pass a bill which relates to the extremely important subject of public health.

I thank the Senator from Alabama for the time which he yielded.

The PRESIDING OFFICER. Who yields time?

Mr. LONG of Louisiana. Mr. President, how much time remains to the two sides?

The PRESIDING OFFICER. Twenty-eight minutes remain under the control of the Senator from Louisiana; 20 minutes remain under the control of the Senator from Alabama.

Mr. LONG of Louisiana. We have more time remaining than they have?

The PRESIDING OFFICER. That is correct.

Mr. LONG of Louisiana. Mr. President, I yield myself 4 minutes. I shall reply briefly to one or two of the points made.

It has been stated that I did not allege that the Department of Health, Education, and Welfare was not using its powers correctly. The burden of my argument has been that we should not leave the stable door open with respect to the billions of dollars spent for health research and let the plunderers proceed to put pressure upon people in Government agencies so as to try to obtain private monopoly rights on research financed by the Government.

I contend that the difference between having drugs developed so that they are immediately available to the public and letting them be sold under a patent monopoly when the Government has paid for the entire research results in a difference in price of about 30 to 1. There is a difference between a person paying 14 cents for a pill for diabetes when the pill has been developed by a private company and paying only half a cent for a pill that has been developed by research conducted with Government money. Over a period of 10 years, the difference in cost to a diabetic might be the difference between $1,600 and $48. That is the kind of money we are dealing with.

Let me cite some of the things that are taking place. I explained the other day how Dr. Guthrie did some research. He is a dedicated man, not seeking to make a killing, not even interested in patent rights. Yet his discovery, used by the Miles Laboratories, sold at 40 times what it cost for manufacture, 40 times the cost of producing it, let us say, in a small laboratory in Louisiana. Fortunately, in that development, a fight was made to protect the public interest.

But there are some cases in which the public interest has not been protected too well. I learned only recently about one case. I made inquiry about it. It deals with a development by Government employees. The work was done in National Institutes of Health laboratories by Government employees. Merck & Co. filed for patents for the Government employees and paid the fees for filing the patent. They provided the patent attorneys to create the presumption of ownership in the company. No other company, to my knowledge—and I believe this is correct—had access to the work done by the National Institutes of Health in this discovery. It is evident that only Merck & Co. got the information and know-how on those contracts.

In my judgment, a legitimate question is whether Government employees were actually working for the company or working for the Government. They were being paid by the Government.

This patent application was paid for by Merck & Co. Merck & Co. apparently has all the foreign rights to it. Yet Merck did not spend a nickel in connection with developing the product. Only after I began to investigate and asked to see the files did the employees assign the patent to the Government. Up to that time, it had not even been reported to the Surgeon General. No request for a determination had been made. This had been done in violation of the law, so far as I can determine. I am sorry to say that the assignment came too late for the Government to obtain its foreign rights. The foreign rights were already vested in employees who had made an agreement with the private company, before the Government even had an opportunity to determine the kind of action that would be in the public interest.

I can cite other cases, but the one I have cited is an excellent example. The patent was not assigned to the Government, even for domestic uses, until after I began an investigation. Even now, it appears that the foreign market is being exploited, because the private company has the foreign patent rights, even though the drug was developed with Government money in Government laboratories. That is the kind of activity I am trying to prevent.

Pressures are being put upon tht National Institute of Health and the Department of Health, Education, and Welfare by private companies, using every power at their command, to turn over the Government findings to the private companies, companies which did not spend a penny and had nothing to do with the research, but which seek the information so that they can exploit the public by charging anywhere from 30 to 1,000 times what the product should sell for.

Much has been said about the messages from universities. I inquired about that. As best I can determine, some of the research people were completely biased. Dr. Lowell T. Coggeshall of the University of Chicago, who was presumed to be impartial, has not been. He is a director of Abbott Laboratories, one of the big drug concerns in this country. For whom is he speaking? Abbott Laboratories or the university? There is a direct conflict of interest.

Another person, Dr. I. S. Ravdin, of the University of Pennsylvania, appeared before the Kefauver committee and testified for the Pharmaceutical Manufacturers Association. For whom is he speaking? For the university or for the Association of Pharmaceutical Manu-

cturers? I inquired of the man who, I understand, is chairman of the Patent Committee of the Universities—at least, he is responsible in that connection—as to what was his view on this subject.

The man whom I have in mind is the vice president of Tulane University at New Orleans. What did he say? He spent the weekend looking into the matter. He said that the American Association of Universities has taken no position and not looked into the matter. He said that the American Council on Education has taken no position and has not determined what its position would be.

The PRESIDING OFFICER. The time of the Senator has expired.

Mr. LONG of Louisiana. Mr. President, I yield myself 1 additional minute.

The PRESIDING OFFICER. The Senator from Louisiana is recognized for 1 additional minute.

Mr. LONG of Louisiana. Mr. President, he said that the Association of Land Grant Colleges and State Universities have not examined the question nor taken a position on the matter, and neither has the National Association of College and University Business Offices.

These are the people who presume to speak for the institutions and they have taken no position. However, on the contrary, there are several organizations such as the Wisconsin Alumni Fund—which was prosecuted by the Attorney General of the United States on an anti-trust action—which send telegrams and say that they want the Long amendment defeated.

Some universities are receiving grants and royalties on some of the discoveries and developments. The universities receive this income by signing monopoly rights on work done for and paid for by the Government. The amount of money which they receive is very small when compared to what the pharmaceutical firms extract from the consuming public.

This is a most inefficient way by which to subsidize education or research. If we want to subsidize research or education, we should do what is proposed in the bill—appropriate the money to them.

The PRESIDING OFFICER. The time of the Senator has expired.

Mr. LONG of Louisiana. Mr. President, I yield myself 1 additional minute.

The PRESIDING OFFICER. The Senator from Louisiana is recognized for 1 additional minute.

Mr. LONG of Louisiana. Mr. President, if we want to subsidize research, we should do what is proposed to be done in the bill. We should grant money from the Treasury of the United States. However, to talk about subsidizing education and research by permitting them to take something that belongs to the people of the country and to put some private firm in position to charge 40 times what they should charge for it, and then to permit them to come in here and say that this is a great help to education because education gets back 5 cents on the dollar from the money which has been plundered from the public is a pretty expensive way to subsidize education.

The PRESIDING OFFICER. Who yields time?

Mr. McCLELLAN. Mr. President, will the distinguished Senator from Alabama yield 5 minutes to me?

Mr. HILL. Mr. President, I yield 5 minutes to the distinguished Senator from Arkansas.

The PRESIDING OFFICER. The Senator from Arkansas is recognized for 5 minutes.

Mr. McCLELLAN. Mr. President, we have a parliamentary situation which exists here that is apt to be overlooked by Senators.

The real issue involved in the amendment—arguments can be made on either side—is whether we shall now abandon the committee system, do away with it, and make an assault upon the committee system in order to get an amendment agreed to. No hearings have been held on the amendment. The amendment has not been examined by committee process. No opportunities for hearings have been offered. The amendment deals with a vital problem confronting this country.

Do we want to agree to abandon a tried and valuable system that has been established and has worked over the years? In committee hearings, we have the advantage of having both sides present their cases, and then we can let the Senate resolve the question.

Are we to resolve this question in an ex parte fashion? If we should agree to the proposed procedure at this time, we would be abrogating every precedent that we have followed in the committee system of the U.S. Senate for so many years.

Every chairman of a Senate committee has something at stake. Every committee member has something at stake. Every Senator has a vital interest in whether we agree to such a departure from the established custom.

I know of cases that might be cited otherwise. They will be referred to in due course. I have made no commitment. I have not resolved the case with myself. There are cases and circumstances under which the Government should take absolute title to a product. However, there are other cases in which it should not. I daresay there is not a Senator today, including the author of the amendment, who can stand on the floor of the Senate now and tell us exactly what this proposal would do. It is complicated. Anyone who argues that the situation is not complicated does not know what he is talking about. It is highly complicated.

Mr. President, all we have to do to determine the answer is to hold committee hearings and hear the testimony that is presented. We have an issue which we must resolve. I should like to see it resolved in the interest of our country, the welfare of our Government and of our people. However, I am not ready to depart from the committee system.

Mr. President, it would be a great favor to me if such a procedure were adopted. The Senate might be doing me a personal favor. The problem is now before my committee. I did not seek the problem. I happen to be chairman of the Subcommittee on Patents. The issue is involved in hearings before that subcommittee. The subcommittee is in the process of holding hearings on the subject now. I propose to hear anyone on either side who has anything to contribute. When that record is made, this amendment might be a proper issue for the Senate. However, it is not a proper issue at this time unless we want to abandon the traditional committee procedures which are followed in the processing of vital and important legislation.

The PRESIDING OFFICER. The time of the Senator has expired.

Mr. HILL. Mr. President, I yield 2 additional minutes to the Senator from Arkansas.

The PRESIDING OFFICER. The Senator from Arkansas is recognized for 2 additional minutes.

Mr. McCLELLAN. Mr. President, the Senator from Louisiana, who has offered this amendment, said in debate on the floor of the Senate last week:

> Those in the Department of Health, Education, and Welfare today follow a policy of protecting the public interest.

That appears on page 14308 of the CONGRESSIONAL RECORD of June 25, 1965.

In the CONGRESSIONAL RECORD of the same day, on page 14296, the following language appears:

> This subject has been studied at great length in various agencies, and as a result HEW has decided to continue following the policy which I advocate.

Mr. President, if that is true, where is the emergency? Where is the urgency to accomplish this purpose in an unorthodox way? Where is the necessity for abrogating established policies in order to effectuate agreement to this amendment?

Agreeing to this amendment would establish a precedent that would come back to haunt the Senate. What committee would feel that it had a duty imposed upon it to go into these controversial issues thoroughly and present a record here that would enlighten and inform the Senate, and enable the Senate to pass judgment on and resolve the issue?

If we were to agree to this amendment, then when bills would be introduced, they would be debated, and any Senator could offer amendments on the basis of his own ideas without hearings having been conducted.

Surely we can submit something for the RECORD, as is being done here today, concerning isolated cases. Just as many cases could be cited on the other side, if this were a proper time and forum in which to try the issue. However, it would not be the proper forum unless we want to permanently set the precedent here of departing from established parliamentary procedures of processing legislation.

Mr. SALTONSTALL. Mr. President, will the distinguished Senator from Alabama yield time to me for the purpose of asking a question?

Mr. HILL. Mr. President, I yield 1 minute to the distinguished Senator from Massachusetts.

The PRESIDING OFFICER. The Senator from Massachusetts is recognized for 1 minute.

Mr. SALTONSTALL. Mr. President, does the Senator not agree with me that patent law is one of the most complex fields of law, and that there are lawyers throughout the country who confine their entire practice to the knowledge and practice of patent laws? Yet, on the floor of the Senate we are trying to agree on an amendment to the patent laws of our country, an amendment which relates to Government patent policy. It is perhaps the most complex subject in the field of law.

Mr. McCLELLAN. The Senator is correct. I have no fixed conclusions about it. I have a desire to learn. I have a desire to make a record here and to receive testimony from all of those who are interested and who have anything that they can contribute that would enable the Senate to legislate wisely and in the public interest.

Mr. HILL. Is it not true that the Senator has already started his hearings?

Mr. McCLELLAN. We have heard 18 witnesses. We have scheduled more witnesses for the 6th of next month, which is the earliest we can schedule them for. Anybody who wants to come before the committee can do so. Statements can be placed in the record which can be read and reflected upon. The other side of the question can be represented. Those statements can be placed in the record. The Senate will then have an opportunity to sit in judgment on the facts, and not on the basis of someone's opinion or argument which can be made without regard to the facts.

Mr. HILL. The Senator has heard 18 witnesses?

Mr. McCLELLAN. Yes.

Mr. HILL. Are others scheduled to be heard?

Mr. McCLELLAN. There are 12 more witnesses to be heard.

Mr. HILL. The Senator is in the middle of hearing the case and going into the case, examining the testimony, getting the best available advice he can get from the expert witnesses, and seeking the benefit of their knowledge and advice. He is in the middle of that, and now it is proposed to jump in and put this provision in the bill.

Mr. McCLELLAN. We are still hearing their testimony and getting their help.

Mr. HILL. Mr. President, may I ask the Chair how much time I have left?

The PRESIDING OFFICER. The Senator from Alabama has 11 minutes remaining.

Mr. HILL. How much time has the Senator from Louisiana?

The PRESIDING OFFICER. The Senator from Louisiana has 18 minutes remaining.

Mr. HILL. I think the Senator from Louisiana should use some time.

Mr. LONG of Louisiana. Mr. President, the matter of committee jurisdiction—

The PRESIDING OFFICER. How much time does the Senator yield himself?

Mr. LONG of Louisiana. I yield myself 4 minutes.

The question of committee jurisdiction has been discussed. The Senator from Louisiana started looking into this matter back in 1959. He discovered situations in 1959 that he concluded were horrible. I refer to the matter of private concerns getting the benefit of Government research money. The Senator from Louisiana went to the then Senator from Wyoming, Mr. O'Mahoney, who had done much work on the antitrust field, and who was then on the Judiciary Committee. Hearings were conducted. He told me, as a personal matter, "You are right, but we have a great deal of power to fight and I will need your help and all the help I can get." But no bill came from the Judiciary Committee.

There was no more able or sincere antitrust and antimonopoly man on that committee than the then Senator from Wyoming, Mr. O'Mahoney, but nothing came from the Judiciary Committee. The Senator from Louisiana asked to have a special committee to investigate the whole patent question but nothing came of it.

I have in my hands three volumes of testimony, very formidable documents. The hearings were conducted by the Monopoly Subcommittee of the Small Business Committee, of which I am chairman. Witnesses testified before the committee and important information was developed. I submitted this information to the Judiciary Committee.

Hearings were then conducted by the subcommittee headed by the distinguished Senator from Arkansas, one of the great Members of this body. Two additional volumes came from that committee. I testified before the committee five times.

Mr. President, my investigation of this question started about 1959. I did what I could to get information as to what the public interest required.

The PRESIDING OFFICER. The time of the Senator has expired.

Mr. LONG of Louisiana. I yield myself 2 additional minutes.

My interest in this field started in 1959 and has continued until today, in the year 1965. I determined to see to it that any time a Senator wanted to bring a research bill out of committee, I was going to ask the question, "Are you going to give money for the use of a private company, or are you going to let the public get the benefit of it?"

I have placed a memorandum of the questions involved on Senators' desks.

With regard to doing this in the interest of the public, I remind Senators that we put such a provision in the Helium Gas Act, in the Saline Water Act, in the Solar Energy Act, in the Water Resources Act, in the Coal Research Act, and in the Regional Development Act of 1965.

Every time a bill comes out of committee providing for research funds, I raise the question, "What do you want to do with the money? Use it for the benefit of someone in a position where he can victimize the American people?"

I am seeking to amend the National Public Health Act. The act comes under the direct jurisdiction of the Committee on Labor and Public Welfare. That is the committee that should amend the act when it needs correction or when it finds fault with it. I submitted the amendment and requested permission to testify. Through some misunderstanding, I was not permitted to testify. I am sure it was not the fault of the Senator from Alabama. There are individual views filed by the Senator from Texas supporting the amendment, which was cleared with the Department of Health, Education, and Welfare.

The President's adviser in the White House said he saw nothing wrong with the amendment. Now I understand he is opposed to it.

When we try to adopt a patent policy that will apply to all the agencies, we find it is impossible to have one policy in effect for all of them. In the Department of Defense the big firms have established a policy, and they have great power. The same is true of the National Space Agency. But when we provide money for research, particularly in new programs, I must ask why we are going to do it. I think I have advocated flexibility.

The PRESIDING OFFICER. The time of the Senator has expired.

Mr. LONG of Louisiana. Mr. President, how much time have we left?

The PRESIDING OFFICER. The Senator from Louisiana has 11 minutes under his control, and the Senator from Alabama has 11 minutes under his control.

Mr. YARBOROUGH. Mr. President, will the Senator yield me a quarter of a minute?

Mr. LONG of Louisiana. I yield the Senator 30 seconds.

Mr. YARBOROUGH. I ask unanimous consent to have a three-page statement inserted in the RECORD.

There being no objection, the statement was ordered to be printed in the RECORD, as follows:

SHALL THE PUBLIC GET ITS MONEY'S WORTH?

THE ISSUE

When the Government pays billions of dollars for research, should the fruit of that research be freely available to the public or should it be the private property of a company which worked for the Government on a guaranteed profit basis?

HOW DOES A PRIVATE BUSINESS DO IT?

Private companies doing research or hiring researchers always insist that whoever pays for the research gets the patent rights to it.

HOW DOES THE GOVERNMENT DO IT?

Until World War II, private patents were not granted on Government research. Most agencies doing research are forbidden by law from giving away patent rights. However, the Department of Defense spends most of the money, and since World War II, it has been granting private patent rights to commercial application of its research. NASA is permitted by law to grant private patents when the Administrator finds it "in the public interest," which under pressure of contractors, is tending toward more and more

Aviation Agency is not bound by law, but does not waive patent rights.

WHAT DOES THE DIFFERENCE MEAN AS APPLIED TO DRUGS?

On the average, it means that the public pays about 30 times the cost plus fair profit at wholesale for drugs produced under private patents. After a retail markup, the public is paying about 60 times the cost of production. (See table at page 14296, CONGRESSIONAL RECORD, June 25, 1965.) For example, the latest oral medicine for diabetes (replacing insulin) retails for about $14.40 per hundred pills—about 14 cents each. This medicine—tolbutamide—was discovered in Europe. Upjohn—using the trade name "Orinase" is the American licensee. The drug sells at wholesale in Europe for about 3 percent of the wholesale price here.

WHAT ABOUT THE CASE WHERE THE COMPANY HAS MADE SOME PROPORTIONATE CONTRIBUTION?

Under the proposed amendments the company could be given exclusive license privileges for 3 years under closely circumscribed conditions.

WHAT PERCENT OF MEDICAL RESEARCH IS DONE BY GOVERNMENT?

The overwhelming bulk of it.

WHY HAVE SOME UNIVERSITY PEOPLE EXPRESSED OPPOSITION?

The leading university organizations have taken no position on the issue, and are generally uninformed on it. Some few special university-oriented persons have been importuned by the drug companies, some of which make contributions to research programs in university laboratories. Some of these contributions are no more than $500 or $1,000, but as tight as university budgets are these days, even small contributions are important.

IF THE UNIVERSITY OR NON-PROFIT RESEARCH LABORATORY DISCOVERS SOMETHING VALUABLE AT PUBLIC EXPENSE, SUCH AS A CURE FOR CANCER, WHY SHOULD IT NOT BE PERMITTED TO LICENSE THE PRODUCTION AND USE THE ROYALTIES FOR MORE RESEARCH?

The difficulty is that the licensee usually gets only a small part of the profit and the bulk of the high monopoly profit—as much as 90 percent of it—can be retained by the private drug company acting as sole licensee. This is a very inefficient way to aid either research or education.

WHY NOT WAIT UNTIL THE M'CLELLAN SUBCOMMITTEE OF THE JUDICIARY COMMITTEE ACTS?

This same subcommittee has been looking at the problem since 1961 without reaching a conclusion. Meanwhile, Congress, especially the Senate, has been acting repeatedly on new research programs to provide that where research is authorized to be done with public funds, the public will enjoy the full benefit rather than place some private group in position to plunder the public interest. As a matter of fact, three of the five members of that subcommittee have voted twice this year for amendments to other bills to forbid private patents on new research programs.

ARE WE LIKELY TO ENACT GENERAL LEGISLATION ON THE SUBJECT AT THIS CONGRESS?

Hardly. If the legislation proposed would drastically alter the policy of the Department of Defense and NASA, there would be tremendous opposition from a great number of business interests, and the Judiciary Committee has a rule of free debate. For example, the civil rights acts have either bypassed the committee or they have been referred with instructions to report on a certain day.

If the committee sought to enact a law to guarantee private patents on Government research, and if it should pass the Senate, it where Chairman CELLER and Subcommittee Chairman WILLIS both have outstanding records for opposing monopoly. You will never satisfy both sides of this issue.

WHAT ABOUT INCENTIVE?

At least 99 percent of medical research nowadays is done by dedicated men who are motivated by the salary they are paid and by their desire to benefit mankind. The Dr. Guthrie case, discussed in debate, is an example of how such a man can be horrified to find that the public is being overcharged fortyfold by a drug company in order to have available the fruit of his research.

Most of these research doctors, chemists, and scientists neither understand nor care about the patent system. They will not have the patents in any event. Most of them are astute enough to know that in the last analysis, it is the U.S. Government that is paying their salary and expenses—not the company, university, or institution through which the money is funneled.

AND HOW ABOUT PRESERVING FREE ENTERPRISE?

If private patents are not permitted on Government research then many companies will compete in price for the public's business and the public will benefit. Competition is the fundamental element that assures the public the benefit of even better products at even lower prices. No one on the selling end can be blamed for trying to avoid competition, but those of us who have a responsibility to the consumer would be derelict of duty to permit monopoly conditions in situations where it is clearly not justified.

IS THERE A DISTINCTION BETWEEN THE HEALTH ASPECT OF THE PROBLEM AND THE DEFENSE RELATED RESEARCH?

Some people think so. The Kennedy memorandum said that patent rights would not "normally" be permitted private contractors in health-related research. Senator RIBICOFF, former Secretary of Health, Education, and Welfare, stated in debate that the Government contributions in this field are so overwhelming that he concluded this was the area in which the case against private patents was the strongest, and he will so vote. Undersecretary Wilbur Cohen helped to work out the Long amendment, and feels that it adequatedy meets the problem. Secretary Celebrezze does not oppose it.

SUMMARY

The question is simply whether the 196 million Americans, having paid for a cure for cancer, heart disease, stroke and many other diseases, are to be assured the new medicines at low competitive prices or whether they will be required for the remainder of their lives to pay monopoly prices ranging from twenty to one thousand times what those drugs could have been availabe for.

To use orinase (for diabetes) as an example, at European prices and under competitive conditions, it could be made available to a person requiring it for 36 cents per month retail compared to $14. In 10 years a diabetes sufferer would pay $43.20 in competitive prices, compared to $1,680 when sold under the American style of drug monopoly.

The orinase example is noteworthy because it is one of many good drugs developed in Europe under a different patent system, the less rigid patent protection there permits Europeans to have the product at prices far below that which a licensed American drug company—which did not discover the drug—is able to extract from the public here.

Mr. SALTONSTALL. Mr. President, will the Senator from Alabama yield to me so that I may ask a question?

Mr. HILL. I yield.

Mr. SALTONSTALL. The Senator want to give the benefits to 196 million Americans, but we also wish to be sure that those 196 million Americans receive the benefits of further scientific research that will advance their health and advance our space efforts and our military efforts. If we take away incentives to develop these inventions, we are taking away much of the initiative that will benefit these 196 million people.

Mr. LONG of Louisiana. Mr. President, I yield myself such time as I may need to comment, but less than 1 minute.

At least 99 percent of the research is done by dedicated men who are motivated by the salary they are paid and by their desire to benefit mankind. The Dr. Guthrie case, discussed in debate, is an example of how such a man can be horrified to find that the public is being overcharged fortyfold by a drug company in order to have available the fruit of his research.

Most of these research doctors, chemists and scientists neither understand nor care about the patent system. They will not have the patents in any event. Most of them are astute enough to know that in the last analysis, it is the U.S. Government that is paying their salary and expenses—not the company, university or institution through which the money is funneled.

If private patents are not permitted on Government research then many companies will compete in price for the public's business and the public will benefit.

Mr. BAYH. Mr. President, will the Senator yield long enough for me to inject a note into this discussion?

Mr. HILL. Mr. President, how much time remains?

The PRESIDING OFFICER. Eight minutes remain.

Mr. HILL. I yield 3 minutes to the Senator from Indiana.

The PRESIDING OFFICER. The Senator from Indiana is recognized for 3 minutes.

Mr. BAYH. Mr. President, the Senator from Louisiana continues to mention the Guthrie example as one in which a company has apparently indulged in practices designed to penalize the public and charge them unconscionable prices for drugs.

I voted with the Senator from Louisiana in his efforts last year to oppose this kind of legislation, but I must say that if the Guthrie case is the best evidence the Senator has, I believe that this demonstrates all the more the need for more hearings. I talked with the Senator and showed him that the information the Children's Bureau gave him was in error. The Children's Bureau said that it costs 1.2 cents per test. The record of the Children's Bureau shows that it cost 9.2 cents for the materials alone to give the test. It does not cover the cost of the labor or the advertising—only the cost of the medicine which was eight times the original figure reported by the Children's Bureau.

It seems that it must be based on specific facts. The Senator and the Children's Bureau alluded to the fact that Miles Laboratories, through the

ey have never charged 52 cents. ey did charge 42 cents. Now the cost is down to barely over 20 cents a test.

An accounting study was made by the firm of Price, Waterhouse & Co., which I shall be glad to let the Senator from Louisiana see—I placed it in the RECORD in answering one of his earlier statements—that proved that the cost to Miles Laboratories and to the Ames Co. was 17.4 cents. It seems to me that this is not an unreasonable burden which the public should have to bear.

I wish to make certain that the public receives the benefit of this research, but when private enterprise goes to all the trouble which Miles Laboratories and the Ames Co. have, I do not believe that it is unfair to request that they get a modest return on the money which they have spent.

Mr. LONG of Louisiana. Mr. President, I yield myself 1 minute.

The PRESIDING OFFICER. The Senator from Louisiana is recognized for 1 minute.

Mr. LONG of Louisiana. Mr. President, I have not responded to the Senator's statement concerning Miles Laboratories, but I have prepared an answer to it, and I shall be glad to make it available to him, if he will read it, before I place it in the RECORD. This is the information which Miles Laboratories presented; and I am sure the Senator realizes it is a self-serving statement of Miles Laboratories. I prepared an answer to that, made by persons who are t biased and prejudiced and have no financial interest in the matter.

Mr. BAYH. This is supported by one of the most reliable accounting firms in the country——

Mr. LONG of Louisiana. Which they hired. Let me speak for a moment on this point: The Massachusetts Public Health Service estimated that the test cost 1.2 cents. Here is a statement which I believe is an adequate answer, showing that this was one good example of exploitation of the public interest. I was saying to the Senator, whether he agrees with it or not, that he should take a look at this statement in any event. I believe that he will find these people are being exploited by the abuse of patent rights. If he will take a look at the statement, I am sure he will agree with me.

Mr. BAYH. Mr. President, will the Senator yield me 30 seconds to respond to the Senator from Louisiana?

Mr. LONG of Louisiana. Why does not the Senator read the statement before he responds?

Mr. BAYH. I suggest that the Senator from Louisiana read this Government document. A book entitled——

The PRESIDING OFFICER. Just a moment—who yields time?

Mr. LONG of Louisiana. I yield 30 seconds to the Senator from Indiana.

The PRESIDING OFFICER. The Senator from Indiana is recognized for 30 seconds.

Mr. BAYH. There is a book entitled "PKU," published by the Department of Health, Education, and Welfare which is hardly a self-serving institution.

A list of the tests appears on page 32—665,902 in number. If the Senator will take the figure and divide into that the cost of the material in the report of the Children's Bureau, he will find that the cost of the materials was approximately 9.2 cents.

The PRESIDING OFFICER. The time of the Senator from Indiana has expired.

Mr. LONG of Louisiana. I hope the Senator will read the statement I have made. The Senator, of course, is a great believer in the public interest up until one of his constituents, such as Miles Laboratories, comes into the picture, then the Senator forgets about the rest of his constituents.

I hope that by his vote he will consider the overall interest of the public in this problem.

The PRESIDING OFFICER. Who yields time?

Mr. HILL. Mr. President, how much time remains?

The PRESIDING OFFICER. The Senator from Alabama has 7 minutes remaining and the Senator from Louisiana has 8 minutes remaining.

Mr. BAYH. Mr. President, will the Senator from Louisiana yield me 15 seconds?

Mr. LONG of Louisiana. I yield 30 seconds to the Senator from Indiana.

The PRESIDING OFFICER. The Senator from Indiana is recognized for 30 seconds.

Mr. BAYH. I am certain that the Senator from Louisiana in referring to one of my constituents is well aware that I have more than 5 million of them, and I am not going to let the private interests of one corporation alter what I feel to be the best interests of my 5 million constituents, to whom the Senator refers.

The PRESIDING OFFICER. Who yields time?

Mr. HILL. Mr. President, I yield 2 minutes to the distinguished minority leader.

Mr. DIRKSEN. Mr. President, earlier today, the distinguished Senator from Texas [Mr. YARBOROUGH] said:

> I regret that Senators on the other side of the aisle are not represented on the floor today.

That is an unkind and uncalled for remark, because Senators are in and out of the Chamber all the time, answering telephones, greeting visitors, and so forth.

He said further:

> Maybe their consciences would not permit them to listen.

As if the Senator from Texas has the only conscience in the Senate. That, I have got to see.

The Senator continues:

> There was a time when Republicans like Borah, Norris, McNary, and LaFollette stood up, when the minority was on our side of the aisle, fighting to protect the public interest.

I suppose the Senator from Texas is the only defender on a white charger who has the work of keeping the public interest.

The Senator continues:

> I hope, whichever way the vote goes, that Senators on this side of the aisle will not vote to betray the public interest. I hope the great majority of the Democrats will cast their votes for the Long amendment.

Well, now, I am against the amendment and I do not yield for a moment to the Senator from the greatest unfrozen State in the Union when it comes to an interest in the public interest, and when it comes to a conscientious approach to the problem.

The Senator from Texas should not have said these things on the floor of the Senate. It is not becoming of him.

Mr. YARBOROUGH. Mr. President, will the Senator yield?

Mr. DIRKSEN. I yield, if I have time.

The PRESIDING OFFICER. The time of the Senator from Illinois has expired.

Mr. YARBOROUGH. Mr. President, will the Senator yield?

Mr. DIRKSEN. I have no time.

Mr. LONG of Louisiana. Mr. President, I ask unanimous consent that we might have 2 additional minutes in order that the Senator may respond, and that I may then respond to the response?

The PRESIDING OFFICER. Is there objection?

Mr. MCCLELLAN. That is 2 minutes, and 2 minutes, and 2 minutes.

The PRESIDING OFFICER. Is there objection? The Chair hears none, and the Senator from Texas is recognized for 2 minutes.

Mr. YARBOROUGH. Mr. President, it is shocking that the minority leader should protest the tribute that I paid to such great members of his party in the Senate as Borah of Idaho, La Follette of Wisconsin, McNary of Washington, and Norris of Nebraska. Norris, the father of TVA, who stood with Franklin Delano Roosevelt and cried at the dedication of the great TVA dam when Franklin Delano Roosevelt put his arms around, not a Democrat, but a Republican, Senator Norris, and said to him, "To you, more than to any other one man, we owe this; you saved the TVA."

This was done by Senator George Norris in the area of the public interest—in protecting the public interest.

Now we have a fight to keep this subject in the public domain, and today the minority side was unrepresented on the floor in a time of crucial debate.

I do not claim to be the leader in this fight; I am merely a worker in the vineyard. The Senator from Louisiana is the leader and has worked, of course, in the Senate for approximately 20 years now, and other Senators have led with him—the Senator from Alabama [Mr. HILL] has led in public health, and I am astonished to hear the Senator say that I should be ashamed of that tribute that I paid to men, Republicans like Norris, and La Follette—I recall from reading history that Bob La Follette's grandfather and Abraham Lincoln's father used to sit on juries together in Kentucky and out of these two lines of American blood came great leadership, which added so much of distinction to American history—both were on the side of the aisle that the dis-

tinguished minority leader represents so ably.

I believe that the Senator from Illinois should be extolling the fact—as I did—that while those Republicans were fighting for the public interest they—Norris, Borah, McNary, and La Follette—were fighting against the majority on their own side of the aisle. My major plea was to the Democrats on this side of the aisle to disregard the telephone calls they may have received, and to vote for the public interest as Norris, McNary, and La Follette did, whether or not they were in the majority in their own party. My plea was primarily to the Democrats in my party; I had no reason to hope that the other party would listen to my pleas. I think it is not a matter of party, but of conscience of each Senator, and I claim no superiority to anybody else. Each Senator knows his own duties and obligations and hopes and aspirations. I call upon their conscience on this bill, but I do not purport to sit in judgment on the conscience of any other man.

I plead with my fellow Democrats to fight in the public interest. My interest, when I made my statement, was that a majority on this side vote with the Senator from Louisiana, regardless of what the minority does.

Mr. HILL. I ask unanimous consent that the minority leader may have 1 minute in which to make answer.

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

Mr. DIRKSEN. Mr. President, there not an abler Senator to completely beg the question. No man has a mind more adroit than that of my friend from Texas in picking out a few names and missing the whole substance of what was said. It was a reflection upon the conscience of Senators and their interest in the public domain.

The Senator from Texas can raise his voice from now until doomsday, but it will not change the content of his utterance on this floor earlier today.

I shall let people read the RECORD, because here are the words that were spoken.

Mr. YARBOROUGH. Mr. President, will the Senator from Louisiana yield me 5 seconds?

Mr. LONG of Louisiana. I yield 5 seconds to the Senator from Texas.

Mr. YARBOROUGH. I thank the very able Senator from Illinois for his kind remarks about my ability. I claim no such achievements. But the vote today will be its own voice and no one can change it from now to doomsday. Methinks he doth protest too much.

Mr. HILL. Mr. President, how does the time stand?

The PRESIDING OFFICER. The Senator from Louisiana has 6 minutes remaining; 5 minutes remain to the Senator from Alabama [Mr. HILL].

Mr. HILL. I yield myself 5 minutes.

On last Thursday, speaking for the large majority of the Committee on Labor and Public Welfare, I opposed the amendment. Today I oppose the amendment, as I must, as chairman of the Committee on Labor and Public Welfare.

I have received many letters and telegrams and communications from presidents and deans and scores of faculty members throughout the United States in opposition to the amendment.

As I cited the other day, such voluntary organizations in the field of health as the American Heart Association, the American Cancer Society, the Association of American Medical Colleges, and the American Association of Colleges of Pharmacy also oppose the amendment; as do the National Academy of Sciences and the American Council on Education. Many other such organizations have stated their opposition.

The Johnson administration also opposes the amendment. Dr. Donald F. Hornig, the director of the Office of Science and Technology at the White House, is also opposed to the amendment. He appeared before the committee of the distinguished Senator from Arkansas only a few days ago and said that this matter should be carefully considered, that it should be thrashed out, and that those with experience and knowledge in this field should be called in. Legislation should be passed, but only after we have had testimony by expert witnesses.

Let me make this point clear. The opposition to the amendment is not based on rigid resistance to modifying the existing Kennedy-Johnson government patent policy. It is based on the conviction that any changes in Government patent policy should be adopted only after careful consideration and after an opportunity for full and fair presentation of the views of all interested organizations and individuals.

As the distinguished Senator from Arkansas has stated, his subcommittee of the Committee on the Judiciary has within recent days heard 18 witnesses on this subject, and at least 12 more witnesses remain to be heard. The subcommittee is proceeding according to the rules and procedures and precedents of the Senate in having witnesses come in to make their presentation, and then having the committee make its report to the Senate.

The present patent policy was adopted in 1963, following more than a year of interagency discussion on the basis of recommendations from 20 Federal agencies and non-Federal authorities. Under this policy, every grantee and every contractor of the Department of Health, Education, and Welfare can be compelled to issue licenses. The Kennedy-Johnson patent policy is an effective policy and it is protecting the consumer. No monopoly or exclusive control is involved.

This fact was brought out by the Senator from Indiana [Mr. BAYH] with reference to the PKU tests, carried out by the Miles Laboratories, through discoveries made by Dr. Guthrie. The Surgeon General insisted that under our policy the results of the research be made available to everyone, no matter who he was or what he was. That was done.

The Senator from Louisiana [Mr. LONG] on the floor of the Senate applauded the U.S. Public Health Service for what it had done under the Kennedy-Johnson patent policy in protecting the rights of all the American people.

The Senator from Louisiana stated that credit for this action on behalf of the public must be given to Dr. Luther L. Terry, the Surgeon General, and to Dr. David E. Price, the Deputy Surgeon General, and all the staff people connected with this action.

I know that Senators will agree with me when I say: "Praise from Caesar is praise, indeed."

The Senator from Louisiana has sought today to impeach some of the witnesses who have protested against the amendment. He said that we have heard nothing from the American Council on Education. The truth is that we received a letter from Dr. Logan Wilson, who is the director of the American Council on Education, in which he said——

The PRESIDING OFFICER. The time of the Senator has expired.

Mr. HILL. Has all my time expired?

The PRESIDING OFFICER. All time of the Senator has expired.

Mr. LONG of Louisiana. Mr. President, I ask unanimous consent that the Senator may proceed for 3 additional minutes.

The PRESIDING OFFICER. Is there objection? The Chair hears none, and it is so ordered.

Mr. HILL. I merely wish to call attention to some of the witnesses who testified.

Dr. Wilson said:

> May I respectfully suggest that a policy issue of such great significance should be studied carefully, as a substantive matter, by committees in both Houses of the Congress. Such an approach would assure constructive changes in present policy and at the same time avoid unforeseen and possible disastrous consequences that might occur as a result of wholesale changes occasioned by the proposed amendment.

I have a communication from Dr. Frederick Seitz, president of the National Academy of Science, in which he says:

> We know far too little of the possible consequences of changes envisaged by the proposed amendment to warrant its approval without a very broad and painstaking inquiry.

From the Association of American Medical College there comes a communication signed by Robert C. Berson, executive director. He says:

> The development and distribution of scientific instruments and devices, such as electronic pacemakers, artificial kindeys, and hopefully other artificial organs, is properly a function of instrument manufacturers who may need some protection of patent rights to continue this activity. If further refinements of this policy are desirable, we would urge that legislation to that end be carefully studied by appropriate committees.

I have before me a communication from the University of the Pacific in California and another from the University of California. Prof. D. J. Cram of the University of California at Los Angeles stated:

At the very least, extensive hearings on the proposed Long amendment should be entertained to determine the public interest in this important matter.

I have also in my hand a communication from Mr. Karl Folkers, president of the Stanford Research Institute, pointing out how important this matter is and how it should be gone into with the greatest care by a committee before any action is taken.

I have before me a communication from Prof. Arnold D. Welch, of Yale University. I shall not read all of the communication because my time is limited. In part he said:

I must speak most strongly to the effect that the Long amendment would seem to me to exert a devastating effect on the future development of new drugs in this country.

The PRESIDING OFFICER. The time of the Senator has expired.

Mr. HILL. Mr. President, will the Senator yield me 1 more minute?

Mr. LONG of Louisiana. I yield 1 additional minute to the Senator from Alabama.

Mr. HILL. I shall not quote all of the communications, but I point out that in addition to the ones I have read, I have received communications from the Florida State University, the Medical College of Georgia, and the head of the Department of Chemistry at the University of Illinois. He is also past president of the American Chemical Society. He is past president of the American Association for the Advancement of Science. In his communication, Roger Adams said:

The Long amendment is certainly not in the public interest for it would deter developments rather than expedite them and many potential industrial products of interest to the public would never be developed.

I have a communication from Johns Hopkins University stating:

Such an amendment would have a severely limiting effect on clinical pharmacologists like myself.

From that same university I have a communication from a famous woman doctor, Dr. Helen B. Taussig, who, along with Dr. Blalock, did the first open heart surgery. In that letter, Dr. Taussig said:

Just a line to let you know that I am strongly behind your bill.

The PRESIDING OFFICER. The time of the Senator has expired.

Mr. HILL. Mr. President, I ask unanimous consent that other statements of a like character which I hold in my hand—and there are many from all over the United States—may be printed in the RECORD at this point.

There being no objection, the communications were ordered to be printed in the RECORD, as follows:

EXCERPTS FROM LETTERS TO SENATOR LISTER HILL OF ALABAMA IN OPPOSITION TO THE AMENDMENT OF SENATOR RUSSELL LONG

AMERICAN HEART ASSOCIATION

Rome A. Betts, executive director, American Heart Association (June 7, 1965):

"American Heart Association concurs in Senate action defeating Long amendment on patent rights June 2. The association is hopeful that this important matter may now be resolved in the Judiciary Committee on an equitable basis since the association has major interest in the solution of this problem."

AMERICAN COUNCIL ON EDUCATION

Logan Wilson, director, American Council on Education:

"May I respectfully suggest that a policy issue of such great significance should be studied carefully, as a substantive matter, by committees in both Houses of the Congress? Such an approach would assure constructive changes in present policy and at the same time avoid unforeseen and possible disastrous consequences that might occur as a result of wholesale changes occasioned by the proposed amendment."

NATIONAL ACADEMY OF SCIENCES

Frederick Seitz, president, National Academy of Science:

"I myself feel that the committee's conclusion is entitled to great respect as a general proposition. I particularly feel that we know far too little of the possible consequences of changes envisaged by the proposed amendment to warrant its approval without a very broad and painstaking inquiry."

ASSOCIATION OF AMERICAN MEDICAL COLLEGES

Robert C. Berson, M.D., executive director:

"The development and distribution of scientific instruments and devices, such as electronic pacemakers, artificial kidneys, and, hopefully, other artificial organs, is properly a function of instrument manufacturers who may need some protection of patent rights to continue this activity. If further refinements of this policy are desirable, we would urge that legislation to that end be carefully studied by appropriate committees."

AMERICAN CANCER SOCIETY

Harold S. Diehl, M.D., senior vice president for research and medical affairs, American Cancer Society: "The American Cancer Society, noting the current sentiment of the Senate regarding the policy on patents growing out of federally sponsored research, would like to request favorable consideration of S. 512 without inclusion of any amendments on patents which were added to the original draft of the bill as it was introduced on January 15, 1965."

CALIFORNIA

Robert E. Burns, president, University of the Pacific: "We feel * * * that the Federal Government's existing policies on patents and copyrights with respect to federally supported research are equitable and reasonable and have not impaired either the flow of information or the transfer of research discoveries into useful healing and life-saving procedures. * * * It is our sincere hope that your committee will see fit to reject Senator LONG's amendment."

D. J. Cram, professor of chemistry, University of California, Los Angeles: "At the very least, extensive hearings on the proposed Long amendment should be entertained to determine the public interest in this important matter."

Karl Folkers, Ph. D., Sc. D., president, Stanford Research Institute: "As a general rule, Stanford Research Institute does not comment on pending legislation. However, there is a piece of proposed legislation before your Committee on Labor and Public Welfare which has such far-reaching implications to research and development in the United States that I feel some comment is in order. I am referring to the so-called Long amendment. * * * The importance of developing a sound, workable Government patent policy is so great that I would like to urge that the Long amendment be tabled until there can be a complete study and public hearings on the subject."

Lee A. DuBridge, president, California Institute of Technology: "The sweeping provisions of the Long amendment would eliminate discretionary powers to take account of special circumstances. Furthermore, the provisions of this amendment have not been adequately studied as to their possible impact on the public welfare."

CONNECTICUT

Arnold D. Welch, Ph. D., M.D.; Eugene Higgins, professor of pharmacology, Yale University: "I must speak most strongly to the effect that the Long amendment would seem to me to exert a devastating effect on the future development of new drugs in this country, and I sincerely and strongly urge that extensive hearings be held on this subject, if necessary, with a view to making any influence of Government funds upon cooperative research between Government grantees and industrial organizations reflect the true spirit of cooperation, rather than punitive control, as seems to be proposed by the Long amendment."

FLORIDA

Werner Herz, professor of chemistry, the Florida State University: "My letter in this instance is prompted by the strong belief that the Long amendment, while superficially in accord with a policy I have favored, will in fact do harm rather than good."

GEORGIA

Robert B. Greenblatt, M.D., professor, Department of Endocrinology, Medical College of Georgia: "As one who has done considerable research with drugs provided me by various pharmaceutical houses, I am deeply concerned. This amendment could deprive me of the opportunity to work with many an interesting compound which could help in the advance of our knowledge and help keep the United States in the forefront of medical research. * * * as the recipient of five awards from the American Medical Association I believe I speak with some authority in saying that I do not believe the amendment necessary nor does it in any way enhance the general good of drug research."

ILLINOIS

Roger Adams, University of Illinois, head of the chemistry department; emeritus past president, American Chemical Society; past president, American Association for the Advancement of Science: "The Long amendment is certainly not in the public interest for it would deter developments rather than expedite them and many potential industrial products of interest to the public would never be developed."

MARYLAND

Louis Lasagna, M.D., Division of Clinical Pharmacology, the Johns Hopkins University: "Such an amendment would have a severely limiting effect on clinical pharmacologists like myself who are sometimes eager to participate in drug research in its early and most difficult stages. I hope it will be possible to pass bill S. 512 without this undesirable amendment."

Helen B. Taussig, M.D., professor of pediatrics (emeritus), the Johns Hopkins Hospital: "Just a line to let you know that I am strongly behind your bill S. 512 and feel that the Long amendment to S. 512 takes the teeth out of your bill and would make it hard for the National Institutes of Health and the other Federal organizations interested in advancement of medical know-how, would find great difficulty in placing contracts."

MASSACHUSETTS

J. M. Hayman, Jr., M.D., dean, Tufts University School of Medicine: "Certainly the Government should have an interest in the product of the research it supports. There can be no quarrel with that. But the Long amendment, as written, is manifestly unfair to the university."

M. Kent Wilson, chairman, Department of Chemistry, Tufts University School of Medicine: "The Long amendment would do serious damage to the fruitful cooperation between all facets of the scientific community and, therefore, in my judgment is against the public interest."

Chester S. Keefer, M.D., former special assistant to the Secretary of HEW for Health and Medical Affairs: "I respectfully urge that action be deferred on the Long amendment until the Congress has had the opportunity to determine the basic guidelines of Government patent policies."

MICHIGAN

Robert C. Edlerfield, professor of chemistry, University of Michigan: "Protest this (Long amendments) to the extent of my ability and solicit your efforts to defeat them. I speak solely as an individual with no connection with any drug house but as one with experience in this area who has developed the only practical curative drug for relaxing malaria which has been properly assigned to the Government. As a former chairman of the National Research Council Division of Chemistry and a member of the National Academy of Sciences I feel that I have a sufficiently objective view to consider Senator LONG's proposals with serious alarms."

MISSISSIPPI

Lewis Nobles, dean, the Graduate School, the University of Mississippi: "In my opinion, the Long rider, if adopted, would greatly hamper all of our efforts (university, Government and industry) to improve research relations among university, industry and Government personnel."

MISSOURI

Elmer Ellis, president, University of Missouri: "I am not advocating undue protection for any private interests which may be involved in this problem, but simply stressing the value of the patent policy to our total national interests and the danger involved if we automatically remove benefits of the patent policy from any and every activity which may have received any type of Federal support."

NEBRASKA

John P. Lambooy, Ph. D., professor of biochemistry, the University of Nebraska, College of Medicine: "If the Long amendment is applied to all Government-supported research, the real vigor in science in the United States of America will quite simply and ultimately disappear from the scene."

NEW JERSEY

Robert F. Goheen, president, Princeton University: "Present patent policies can probably be improved. However, this complex and important subject merits its own thoughtful and exhaustive study, and it should not be approached by the hasty attachment of amendments to any and all bills having to do with Government sponsored research."

NEW YORK

Dr. W. H. Sebrell, Jr., professor of nutrition, Columbia University: "As you are well aware, there are many difficult problems to be resolved in reaching a fair decision in so complicated a matter, particularly since university, commercial, and Government support are all concerned in medical research accomplishments. No one questions that the Government should have an interest in the results of the research to which it has contributed. However, the Long amendment appears to me to be unfair to the other interests that are concerned. I would, therefore, like to urge that you give your support to deferring the Long amendment until there has been thorough consideration of the broad questions involved in arriving at a sound and fair patent policy for Government-supported research.

"One of the very great things about American research has been the way in which Government, industry, and the universities have worked together. The question of patent policy is too important to allow a hurried decision to jeopardize the very basis of the excellent progress we are making."

James M. Hester, president, New York University: "The Long amendment removes discretionary powers from the administrative heads of agencies and makes the proposed policy mandatory. The Office of Science and Technology has well stated the complexity of the situation and the need for full consideration of the wide range of issues involved."

NORTH CAROLINA

James W. Bawden, assistant dean and coordinator of research, Dental Research Center, University of North Carolina: "I urge that you oppose passage of this legislation. We have given careful consideration to the situation and feel that the amendment is not to the advantage of high-level scientific research."

NEW HAMPSHIRE

James Brian Quinn, professor of business administration, Dartmouth College: "I consider the Long amendment to bills involving scientific and technological development to be one of the most dangerous and wasteful proposals ever put forward in the field of Government contracting. As a specialist in the administration of scientific and technical programs, I urge you to bring all possible political pressure against this amendment."

OHIO

Melvin S. Newman, professor of organic chemistry, the Ohio State University: "As a person who has spent over 30 years in research in universities as a staff member and as a member of the National Academy of Sciences, Organic Chemistry Division, I urge that very careful attention be given to any laws now being considered which threaten to break down the present system of research support and cooperation between members of universities, industry and Government."

PENNSYLVANIA

Charles C. Price, chairman, Department of Chemistry, University of Pennsylvania: "The Long amendment will greatly decrease the progress of medical science in this country, at least its availability for the benefit of the public. I hope you will oppose this amendment vigorously, in favor of a more judicious and long-range study of the entire problem of the relationship of the private and public sectors of our scientific and technological endeavors."

Charles S. Cameron, president, Hahnemann Medical College and Hospital: "Surely the Government's and the public's interests can be safeguarded without the blanket provision of Mr. LONG's amendment which, as we see it, will not warm, but smother the free association of scientific minds which is the lifeblood of scientific discovery and technical progress."

RHODE ISLAND

Barnaby C. Keeney, president, Brown University: "The proposed Long amendment has been discussed here with people who have spent many years studying the problems of Federal support of research and education in the life sciences. We recognize the complexity of patent and copyright problems.

"I certainly endorse Dr. Donald Hornig's general approach to this amendment. The amendment appears to be an oversimplified approach to a complex problem."

TENNESSEE

Grant W. Liddle, professor of medicine, Vanderbilt University: "It would be a genuine tragedy for all of us if, as a result of legislation, the pharmaceutical industry, which has unique contributions to make to medical research, were to be any less creative vigorous, and enthusiastic than in the past in joining their efforts with those of university physicians in solving biomedical problems."

TEXAS

Richard B. Turner, professor of chemistry, Rice University: "First let me say that I oppose the amendment. My present purpose, however, is to urge in the strongest terms that action on the Long amendment be deferred until such time as the whole general question of patent policy can be made the subject of detailed investigation, debate, and public hearing."

UTAH

D. M. Hammond, professor and head, department of zoology, Utah State University: "In my opinion this is an important problem, action on which should be deferred until consideration has been given to the fundamental question of patent policies for Government-supported research.

"In my opinion any hasty legislative action which might jeopardize the cooperative relationship between university scientists and industry would be highly unfortunate. Therefore, I am asking that this problem receive thorough consideration before any action is taken on the Long amendment."

VIRGINIA

Randolph T. Major, University of Virginia: "I am sure that all would agree that the Government should have an interest in the results of the research it supports. But the Long amendment seems to me clearly unfair to university and industrial scientists who may collaborate with Government scientists on research programs."

WISCONSIN

Farrington Daniels, professor emeritus, Solar Energy Laboratory, the University of Wisconsin: "This problem of the ownership of patentable ideas developed by scientists receiving part of their support from Government funds is very complicated. Certainly the Government which supplies part of the support of a research project is entitled to free use of any inventions which may come from this research. On the other hand, the progress toward public use of these inventions may well be accelerated if patents can be issued for commercial development. The U.S. system of patents has been uniquely successful in developing new manufacturing projects and has resulted in an extraordinary high standard of living. Some of my friends are quite concerned that if the Long amendment is adopted by Congress, that the advances in the country's economics may suffer a setback because private capital will not be so readily available for carrying our development of new inventions. I hope that you and your committee members will give careful thought to the implications of this amendment."

Mr. LONG of Louisiana and Mr. MILLER addressed the Chair.

The PRESIDING OFFICER. Who yields time?

Mr. LONG of Louisiana. Mr. President, how much time have I remaining?

The PRESIDING OFFICER. The Senator from Louisiana has 6 minutes remaining under his control.

Mr. LONG of Louisiana. Is there more time available?

The PRESIDING OFFICER. All time has expired except the 6 minutes remaining under the control of the Senator from Louisiana.

Mr. LONG of Louisiana. Mr. President, I yield myself 2 minutes.

Mr. MILLER. Mr. President, will the Senator yield?

Mr. LONG of Louisiana. I have only 2 minutes.

Mr. President, it is obvious that efforts are being made to make the universities front for the drug companies. I understand that. I have exposed on the floor of the Senate at least two individuals who claimed to speak for universities when they were actually speaking for their drug companies, and when they have been here speaking for associations, they have been really speaking for pharmaceutical monopolies.

I should like to point out that Dr. Fred Cagle, of Tulane University, is the chairman of research activities of the American Council on Education. That is the biggest of the associations. He has said that the Council on Education is being quoted as being opposed to the Long amendment. That is completely incorrect because the organization has the same objectives as does the Senator from Louisiana, that is, to make the fruits of research freely available to the public as quickly as possible.

Some of the letters to which the Senator from Alabama referred had to do with my amendment to the higher education bill and are not at all relevant with regard to the question of Government-sponsored research for health as contained in the bill now before the Senate.

It has been said that the Senator from Louisiana stated that he knew of no mis[illegible] going on. I pointed out one case in [illegible]ch there was a direct violation of the law. In that case the research was done in Government laboratories by Government researchers. After I looked into the case, the Merck Co. assigned the patent rights to the Government because they knew it was against the law for them to have those rights. But the Government lost its rights to the foreign patents as a result of what the Merck Co. did in that case.

I can point to another case to show how Merck Co. has been using pressure in order to find ways to get patents, in violation of the law, on Government research in the field of tranquilizers which are used for mental health problems. They try, often in violation of law, to get hold of patents on Government research even when the work is done by the Government's own employees.

What protection have we when some private concern gets its foot in the door and can make a case for private patents on Government research?

THE HASSLE OVER PATENTS

Mr. President, an interesting editorial concerning the general issue debated in the Senate earlier today was published in the Washington Post on May 26, 1965, entitled "Hassle Over Patents."

I ask unanimous consent to have this editorial printed in the RECORD.

There being no objection, the editorial was ordered to be printed in the RECORD, as follows:

HASSLE OVER PATENTS

The long smoldering dispute over the patenting of discoveries made in the course of federally financed research and development work has flared up again. Senator LEE METCALF, in a speech on the floor of the Senate, of "lobbying" on behalf of certain business groups. These groups believe that the patent rights to ideas developed with Federal funds should be awarded to the contracting business firm or nonprofit institution.

"Lobbying" is a pejorative, often imprecise term, and there is little point in attempting to plumb the Senator's charges. But there is much that should be said and done about the failure of the Government to articulate a clear policy in this troublesome area.

Some Federal agencies, notably the Atomic Energy Commission, follow a clear and consistent rule. Except in cases where the research contractor already holds patents in closely related areas, all patents issuing from Federal contracts automatically revert to the Government. But other agencies are permitted by law to waive the patent claims of the Government.

The battle now being waged, both in the Congress and within the administration, is over which policy shall prevail. Senator RUSSELL B. LONG insists that the patents growing out of Federal contracts belong to the public, and he has attached amendments to several important bills which uphold that principle. The patent law bar, industry groups and many universities are ranged on the other side. They contend that the prospect of owning patent rights provides an important incentive to solve problems quickly. And they raise the question of whether the Government has the right to patents where the contracting researcher draws upon a previously acquired expertise.

In October 1963, the late President Kennedy issued a patent memorandum which purported to provide guidance for Government agencies. But that document and the Patent Advisory Panel subsequently formed appear only to have confused matters.

Patent policy issues can be complex, but not so esoteric as spokesmen for the patent bar claim when they chastise laymen for speaking out. When a private business enterprise contracts and pays for research and development work, there is seldom if ever any question about its right to the patents that may emerge. The same principle should apply in the case of Government-sponsored research. There is no good reason why the taxpayers should be expected to pay $15 billion a year for research and then turn over to the adequately compensated contractors exclusive patent rights.

To be sure, the rights of the owners of "back-ground patents" should be protected when they engage in Government contract work. But aside from that exception, all patents developed under Federal contracts should revert to the Government, and the Government in turn should make the patented knowledge freely available to all potential users.

Mr. LONG of Louisiana. I have outlined my arguments. I do not have much more time to go into the issue. I should like to offer my remaining time to the senator from Oregon [Mr. MORSE] and the Senator from Michigan [Mr. HART].

I yield 2 minutes to the Senator from Oregon.

The PRESIDING OFFICER. The Senator from Oregon is recognized for 2 minutes.

Mr. MORSE. Mr. President, as member of the Committee on Labor and Public Welfare, it is with reluctance that I have come to the conclusion that the amendment of the Senator from Louisiana should be adopted. There is a question of fact in the debate so far as I am concerned that will determine my vote on the issue, and that is whether or not the evidence presented by the Senator from Louisiana and others supports a prima facie case to the end that various commercial concerns, particularly drug companies, will be unduly enriched by a failure to adopt the amendment and the financing of their research by the taxpayers of the country. I think it would be a mistake to set a precedent here today, when we have this great controversy on patents, of seeming to approve of the undue enrichment of private concerns as a result of research financed by the taxpayers.

Furthermore, I well remember not so long ago the sound amendment of the Senator from Alabama to the tidelands bill, which I supported, and which my friend from Louisiana opposed, in which we urged then that royalties from the oil lands go to support education. I suggest that in connection with the payment for research by the taxpayers we have the right not to give away the benefits that flow from that research to commercial concerns in this country. At least we should be insisting that the proceeds go to some such worthwhile public purpose as aid to education.

The PRESIDING OFFICER. The 2 minutes yielded to the Senator from Oregon have expired.

Mr. MORSE. We have in this country what amounts to a shakedown of the American taxpayer by commercial concerns that wish to unduly enrich themselves at the expense of the public purse. This is an example of it.

Mr. LONG of Louisiana. Mr. President, I yield 2 minutes to the Senator from Michigan.

Mr. HART. Mr. President, one comment that is frequently made of the Senate and the Congress is that there are too many lawyers in it. I have never heard the charge made that there are too many patent lawyers. Indeed, I doubt if there are any. This may explain in part why there are few of us who are comfortable and assured in the treatment and disposition of matters relating to patent rights.

It is for this reason that I am delighted that the able Senator from Arkansas [Mr. MCCLELLAN] is directing now an overall analysis of the position which the Federal Government should take with respect to discoveries and patents resulting from Government-financed research. This is the first such review in many, many years; years during which the Federal Government has become a most important contributor to such research. In the few years I have been permitted to be a participant in the Senate business, I have supported the so-called Long amendment the several times it has been offered to various bills. For the first time I opposed this amendment when a few weeks ago it was proposed to be added to the NASA authorization bill. It seems to me desirable that we await the full record of the McClellan study and seek to apply across the board a prudent rule. On earlier votes, no such study was underway. I would anticipate taking a similar position on any other authorization or appropriation bills which relate, as did the NASA bill, to research which is related to commercial products. But the Long amendment now pending is to a bill which provides in

rt for health research. For some 2 ears under the leadership of the late and respected Senator Kefauver, I was a member of the subcommittee which heard much testimony on patents in the field of medicine.

Even in this field I confess to a continuing uncertainty as to what the final answer should be, but it is a field in which I have heard extensive testimony and much discussion. Indeed, I was alone with the Senator from Tennessee in supporting the proposition that the general patent law should be modified as it relates to drug patents, that the exclusive period should be reduced substantially, and that licenses be required to be given by a patent holder to any responsible firm on the payment of a reasonable royalty after the period of the reduced exclusive patent right had run. So I bring to this area of Government research some rather established opinions as to the course which best serves the public welfare. I hope that as the overall patent policy can be developed within the McClellan committee, that I may persuade others in the committee to this point of view with respect to research relating to health. I do not know how long it will be before the effort which began some weeks ago in the McClellan committee reaches the point of enactment of basic patent policy on the statute books. This year. I would doubt it. This Congress? One cannot be certain. But the Senator from rkansas [Mr. McCLELLAN] can be ounted on to move the basic study as objectively as possible. I believe that the Long amendment, which provides flexibility, represents a prudent policy for the transition period, however long it may be, before we are in position to make final determination with respect to the legislation now pending in the McClellan committee. It is just possible that a cancer cure could "fall out" from Government-financed research during this, we hope, brief interim period. The Long formula would be of real value under such circumstances.

It is for this reason, therefore, that I shall support the Long amendment, it relating to medicine and public health research, not to commercial rockets or tools.

The PRESIDING OFFICER. The time of the Senator has expired.

Mr. HILL. Mr. President, I yield 2 minutes to the Senator from New York.

Mr. KENNEDY of New York. Mr. President, I want to be on record regarding this vote, because I want the RECORD to reflect that in voting against the amendment proposed by the Senator from Louisiana, I am doing so for procedural reasons only.

I believe basically that the Government should retain title to inventions discovered through research that it has financed. This is particularly true where matters regarding health are concerned, but I continue to be disturbed about the procedure of having to consider this matter anew every time we are faced with the authorization or appropriation for a different Government agency. Senator McCLELLAN's subcommittee is still considering this matter on a Government-wise basis, and as I stated at the time of the vote on the NASA authorization bill, I believe that we should await the results of that study.

If changes are to be made in the Government-wide patent policy, they should be made on a Government-wide basis after full hearings and study. If Senator McCLELLAN's hearings do not produce an overall policy that we can agree to, then there would be more justification for using the case-by-case approach of Senator LONG.

Our vote today does not bind us to approving the actions and policies of every President and every Secretary of Health, Education, and Welfare and every Surgeon General. And it is important to note that the Senator from Louisiana stated on the Senate floor last Friday that he does not disagree with the present HEW patent policy. The amendment, he said, simply codified: "what HEW is doing and what it thinks should be done. I am not quarreling with that agency. I am in support of the position that it has followed."

Thus, in the words of the Senator from Louisiana himself, the problem is not in the present, but rather "the risk that this program should become subject to efforts of those who would exploit the public interest and bring about a change in that policy."

The point is, therefore, that there is no urgency on this matter. We do have time, insofar as HEW is concerned, to let Senator McCLELLAN complete his study, so that we can evolve the presently satisfactory policy of HEW into a legislative policy that is appropriate for every agency of the Government. If by next year or the year after we still have no overall policy by legislation, and if it then appears that particular legislation is needed for HEW or NASA or any other agency, we can act then. Our action today does not keep us from doing that.

My only point is that I do not believe we should act on an agency-by-agency basis until it is apparent that that is the only way we will get action in this field. There will be ample time for that kind of approach when and if it becomes necessary. I shall, therefore, vote against the amendment which the Senator from Louisiana has proposed today.

Mr. MILLER. Mr. President, the Long amendment should be defeated, and it should be tabled.

This points up the same old issue which the Senator from Louisiana and I debated last January 28—page 1497 of the RECORD of that date—at the time of consideration of the water pollution control bill.

I said then and I say now that it is unfair to turn over all patents and inventions to the Federal Government without regard to how much of the contractor's own money and resources are involved—just because some Federal money is involved in a contract.

This is not an issue of turning over all patent and invention rights to the Federal Government when the Government puts up all of the money. It is an issue of whether the contractor and the Federal Government should share equitably in these rights when both put up something.

The amendment of the Senator from Louisiana would turn over practically all patent rights to the Government whenever appropriated funds are expended for any scientific or technological research or development activity—regardless of how much the contractor puts up. It is one sided and unfair, and it will tend to retard inventiveness because the rewards therefrom will be lost by private industry.

I ask unanimous consent that a telegram in opposition to this amendment from the president of Iowa State University and a letter in opposition to the amendment from the professor of organic chemistry of Iowa University be printed at this point in the RECORD.

There being no objection, the telegram and letter were ordered to be printed in the RECORD, as follows:

AMES, IOWA,
June 22, 1965.

Senator JACK MILLER,
New Senate Office Building,
Washington, D.C.:

Iowa State University respectfully urges your support in defeating Senator LONG's attempt to force his patent amendment on the House-passed health research facilities bill, H.R. 2984. Senator LONG's amendment would seriously limit university research.

JAMES H. HILTON,
President, Iowa State University.

STATE UNIVERSITY OF IOWA,
Iowa City, Iowa, June 22, 1965.

Senator JACK MILLER,
U.S. Senate,
Washington, D.C.

DEAR SENATOR MILLER: This letter is being written to give you my views on the Senator LONG patent amendment to the House-passed health research facilities bill, H.R. 2984.

We in the academic field working in medical chemistry are greatly dependent upon drug firms for the screening of compounds for physiological action. Passage of the Long amendment would prevent this arrangement and seriously hinder research on the preparation of new drugs and impede scientific progress which results from such collaboration.

I hope that you will oppose this amendment when it comes up before the Senate. In so doing, you will aid the continuation of the Nation's economic growth.

Sincerely yours,

STANLEY WAWZONEK,
Professor, Organic Chemistry.

The PRESIDING OFFICER. All time having expired, the question is on agreeing to the amendment of the Senator from Louisiana [Mr. LONG], No. 298. On this question the yeas and nays have been ordered.

Mr. PASTORE. Mr. President——

The PRESIDING OFFICER. All time has expired.

Mr. PASTORE. Mr. President, I move to lay amendment of the Senator from Louisiana on the table.

Mr. MANSFIELD. Mr. President, will the Senator withhold his motion?

The PRESIDING OFFICER. Will the Senator withhold his motion?

Mr. MILLER. Mr. President——

The PRESIDING OFFICER. Does the Senator from Rhode Island withhold his motion?

Mr. PASTORE. Mr. President, I move

to lay the amendment of the Senator from Louisiana on the table.

The PRESIDING OFFICER. The question is on the motion of the Senator from Rhode Island to lay on the table the amendment of the Senator from Louisiana [Mr. LONG].

Mr. MILLER. Mr. President——

The PRESIDING OFFICER. The question is on agreeing to the motion of the Senator from Rhode Island.

Mr. MORSE. Mr. President, I ask for the yeas and nays.

The yeas and nays were ordered.

The PRESIDING OFFICER. The question is on agreeing to the motion of the Senator from Rhode Island to lay on the table the amendment of the Senator from Louisiana [Mr. LONG]. On this question the yeas and nays have been ordered, and the clerk will call the roll.

The legislative clerk called the roll.

Mr. MANSFIELD (when his name was called). I have a pair with the senior Senator from Virginia [Mr. BYRD]. If he were present and voting, he would vote "yea." If I were at liberty to vote, I would vote "nay." Therefore, I withhold my vote.

The roll call was concluded.

Mr. LONG of Louisiana. I announce that the Senator from Pennsylvania [Mr. CLARK], the Senator from South Dakota [Mr. MCGOVERN], the Senator from Maryland [Mr. TYDINGS], are absent on official business.

I further announce that the Senator from Virginia [Mr. BYRD], is necessarily absent.

On this vote, the Senator from Pennsylvania [Mr. CLARK] is paired with the Senator from Wyoming [Mr. SIMPSON]. If present and voting, the Senator from Pennsylvania would vote "nay" and the Senator from Wyoming would vote yea.

On this vote, the Senator from Maryland [Mr. TYDINGS] is paired with the Senator from New Hampshire [Mr. COTTON]. If present and voting, the Senator from Maryland would vote "nay" and the Senator from New Hampshire would vote "yea."

On this vote, the Senator from South Dakota [Mr. MCGOVERN] is paired with the Senator from Nebraska [Mr. HRUSKA]. If present and voting, the Senator from South Dakota would vote "nay" and the Senator from Nebraska would vote "yea."

Mr. KUCHEL. I announce that the Senator from Nebraska [Mr. HRUSKA] and the Senator from New Hampshire [Mr. COTTON] are necessarily absent.

The Senator from North Dakota [Mr. YOUNG] is absent on official business.

The Senator from Wyoming [Mr. SIMPSON] is detained on official business.

On this vote, the Senator from New Hampshire [Mr. COTTON] is paired with the Senator from Maryland [Mr. TYDINGS]. If present and voting, the Senator from New Hampshire would vote "yea" and the Senator from Maryland would vote "nay."

On this vote, the Senator from Wyoming [Mr. SIMPSON] is paired with the Senator from Pennsylvania [Mr. CLARK]. If present and voting, the Senator from Wyoming would vote "yea" and the Senator from Pennsylvania would vote "nay."

On this vote, the Senator from Nebraska [Mr. HRUSKA] is paired with the Senator from South Dakota [Mr. MCGOVERN]. If present and voting, the Senator from Nebraska would vote "yea" and the Senator from South Dakota would vote "nay."

The result was announced—yeas 55, nays 36, as follows:

[No. 154 Leg.]

YEAS—55

Aiken	Inouye	Pastore
Allott	Jackson	Pearson
Bayh	Javits	Pell
Bennett	Jordan, N.C.	Prouty
Boggs	Jordan, Idaho	Robertson
Carlson	Kennedy, Mass.	Russell, S.C.
Case	Kennedy, N.Y.	Russell, Ga.
Cooper	Kuchel	Saltonstall
Curtis	Lausche	Scott
Dirksen	Magnuson	Smith
Dominick	McCarthy	Sparkman
Eastland	McClellan	Stennis
Ervin	Miller	Symington
Fannin	Mondale	Thurmond
Fulbright	Monroney	Tower
Hayden	Morton	Williams, N.J.
Hickenlooper	Mundt	Williams, Del.
Hill	Murphy	
Holland	Muskie	

NAYS—36

Anderson	Fong	Montoya
Bartlett	Gore	Morse
Bass	Gruening	Moss
Bible	Harris	Nelson
Brewster	Hart	Neuberger
Burdick	Hartke	Proxmire
Byrd, W. Va.	Long, Mo.	Randolph
Cannon	Long, La.	Ribicoff
Church	McGee	Smathers
Dodd	McIntyre	Talmadge
Douglas	McNamara	Yarborough
Ellender	Metcalf	Young, Ohio

NOT VOTING—9

Byrd, Va.	Hruska	Simpson
Clark	Mansfield	Tydings
Cotton	McGovern	Young, N. Dak.

So Mr. PASTORE's motion to lay on the table the amendment of Mr. LONG of Louisiana was agreed to.

Mr. HILL. Mr. President, I move to reconsider the vote by which the motion to lay the amendment on the table was agreed to.

Mr. KUCHEL. Mr. President, I move to lay that motion on the table.

The motion to lay on the table was agreed to.

Mr. PASTORE. Mr. President, I should like to explain why I made the motion to lay on the table and why I voted as I did.

I am doing it now because all time had expired and I did not then have opportunity to express myself. I was unable to do so before I made the motion.

If I were placed in the position of having to vote on the merits of the amendment, I should have voted in the affirmative. I believe in the objective which the amendment seeks to accomplish. I am for the consumer. I voted for the natural gas bill. I voted to cut down the oil depletion allowance. I believe in protecting the rights of the consumer. The objective of this amendment is to protect the rights of the consumer. But the weight of opinion is that this is not the time or place or procedure.

The Senator from Rhode Island was persuaded by the argument made by the Senator from Alabama [Mr. HILL] and the Senator from Arkansas [Mr. MCCLELLAN] that the matter needs exhaustive study. It needs the considered judgment based upon hearings by a proper committee of the Senate. That committee is now engaged in hearings on this specific question.

For that reason, I made the motion to lay the amendment on the table, merely as a procedural matter, and not because I am opposed to the objective of the particular amendment.

I should hope that the committee of Congress which is entrusted with this very important problem would act expeditiously so that we might achieve a settled national policy concerning the protection of patent rights when Federal money is used in these research programs.

Mr. JAVITS. Mr. President, I should like to identify myself with the views of the Senator from Rhode Island.

I feel exactly that way. I agree with the Senator in every way.

Mr. DODD. Mr. President, I want to take just a moment to note why I voted against tabling the amendment of the distinguished Senator from Louisiana.

Senator LONG has labored indefatigably for many years on patent policy amendments he and a number of our colleagues deem to best serve the public interest.

I have disagreed with the wisdom of some of these amendments because I believe that the traditional American patent policy of rewarding private inventive energy and genius and protecting its fruits has been the key to much of the material greatness of our Nation.

At the same time, I believe that the health, even the life, of every American, indeed of every person in the world is intimately connected with the achievements of modern medicine.

Therefore, I believe that medical discoveries financed by public funds present a case significantly different from other scientific and mechanical developments in the course of Government-subsidized research.

Furthermore, whereas our traditional patent policy has consistently encouraged prolific invention, by requiring development of alternative or improved devices and ideas to circumvent existing patents, we can have no such confidence that we can develop or that we can await the development of alternative medicines and devices to combat cancer, heart disease, and the whole catalog of ailments which plague mankind.

And so I think that the only similarity relevant to patent policy between Government-financed research in medicine and in other fields is that all such research involves public funds.

Thus, the objects of medical research, their urgency, and their intimacy to human welfare and survival may dictate that different patent policies be applied to publicly financed medical research than are applied, for example, to defense and space research.

Therefore, I voted against tabling Senator LONG's amendment. I think it deserved the test of a rollcall vote.

Mr. McGOVERN subsequently said: Mr. President, earlier this afternoon I inadvertently missed a rollcall vote on the amendment of the Senator from Louisiana [Mr. LONG], relative to the public's interest in patents, stemming from Government-financed medical research.

I support the Long amendment and I regret missing this important vote.

I was in the Senate dining room during the entire rollcall conferring with six university leaders who are supporting my bill, S. 1212, that seeks to give our colleges and universities a more effective role in the foreign assistance program. We were deeply engrossed in conservation. I simply did not hear the rollcall bell. Furthermore, no member of the Senate staff, nor of my own staff, notified me that a rollcall was in progress. I am sorry that a combination of negligence on my part, and that of staff personnel, led to my missing this important vote.

The PRESIDING OFFICER. The bill is open to further amendment. If there be no further amendment to be proposed, the question is on the engrossment and third reading of the bill.

The bill was ordered to be engrossed for a third reading, was read the third time and passed, as follows:

S. 596

An act to amend the Public Health Service Act to assist in combating heart disease, cancer, and stroke, and other major diseases.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That this Act may be cited as the "Heart Disease, Cancer, and Stroke Amendments of 1965".

SEC. 2. The Public Health Service Act (42 U.S.C., ch. 6A) is amended by adding at the end thereof the following new title:

"TITLE IX—REGIONAL MEDICAL COMPLEXES FOR RESEARCH AND TREATMENT IN HEART DISEASE, CANCER, STROKE, AND OTHER MAJOR DISEASES

"Purposes

"SEC. 900. The purposes of this title are—

"(a) Through grants, to encourage and assist in the establishment of regionally coordinated arrangements among medical schools, research institutions, and hospitals for research and training and for demonstrations of patient care in the fields of heart disease, cancer, stroke, and other major diseases;

"(b) To afford to the medical profession and the medical institutions of the Nation, through such coordinated arrangements, a more abundant opportunity of making available to their patients the latest advances in the diagnosis and treatment of these diseases; and

"(c) To accomplish these ends without interfering with the patterns, or the methods of financing, of patient care or professional practice, or with the administration of hospitals.

"Authorization of appropriations

"SEC. 901. (a) There are authorized to be appropriated $50,000,000 for the fiscal year ending June 30, 1966, $100,000,000 for the fiscal year ending June 30, 1967, $200,000,000 for the fiscal year ending June 30, 1968, and $300,000,000 for the fiscal year ending June 30, 1969, for grants to assist public or nonprofit private universities, medical schools, research institutions, hospitals, and other public or nonprofit private institutions and agencies, or associations thereof, in planning, establishing, and operating regional medical complexes for research, training, and demonstration activities for carrying out the purposes of this title. Sums appropriated under this section for any fiscal year shall remain available for making such grants until the end of the fiscal year following the fiscal year for which the appropriation is made.

"(b) A grant under this title shall be for part or all of the cost of the planning and other activities with respect to which the application is made, except that any such grant with respect to construction of, or provision of built-in (as determined in accordance with regulations) equipment for, any facility may not exceed 90 per centum of the cost of such construction or equipment.

"(c) Funds appropriated pursuant to this title shall not be available to pay the cost of hospital, medical, or other care of patients except to the extent it is, as determined in accordance with regulations, incident to research, training, or demonstration activities.

"Definitions

"SEC. 902. For the purpose of this title—

"(a) The term 'regional medical complex' means a group of public or nonprofit private institutions or agencies engaged in research, training, prevention, diagnosis, and treatment relating to heart disease, cancer, or stroke and, at the option of the applicant, any other disease found by the Surgeon General to be of major significance to the aforesaid objectives of such regional medical complex; but only if such group—

"(1) is situated within a geographic area, composed of any part or parts of any one or more States, which the Surgeon General determines, in accordance with regulations, to be appropriate for carrying out the purposes of this title;

"(2) consists of one or more medical centers, one or more categorical research centers, and one or more diagnostic and treatment stations; and

"(3) has in effect arrangements for the coordination of the activities of its component units which the Surgeon General finds will be adequate for effectively carrying out the purposes of this title.

"(b) The term 'medical center' means a medical school or other medical institution involved in post-graduate medical training and one or more hospitals affiliated therewith for teaching, research, and demonstration purposes.

"(c) The term 'categorical research center' means an institution (or part of an institution) the primary function of which is research (including clinical research), training of specialists, and demonstrations and which, in connection therewith, provides specialized, high-quality diagnostic and treatment services for inpatients and outpatients.

"(d) The term 'diagnostic and treatment station' means a unit of a hospital or other health facility, the primary function of which is to support and augment local capability for providing specialized, high-quality preventive, diagnostic, and treatment services to outpatients and inpatients.

"(e) The term 'nonprofit' as applied to any institution or agency means an institution or agency which is owned and operated by one or more nonprofit corporations or associations no part of the net earnings of which inures, or may lawfully inure, to the benefit of any private shareholder or individual.

"(f) The term 'construction includes alteration, major repair (to the extent permitted by regulations), remodeling, replacement, and renovation of existing buildings (including initial equipment thereof), and replacement of obsolete, built-in (as determined in accordance with regulations) equipment of existing buildings.

"Grants for planning and development

"SEC. 903. (a) The Surgeon General, upon the recommendation of the National Advisory Council on Medical Complexes established by section 905 (hereinafter in this title referred to as the 'Council'), is authorized to make grants to public or nonprofit private universities, medical schools, research institutions, hospitals, and other public or nonprofit private agencies and institutions, or associations thereof, to assist them in planning the development of regional medical complexes.

"(b) Grants under this section may be made only upon application therefor approved by the Surgeon General. Any such application may be approved only if it contains or is supported by reasonable assurances that—

"(1) Federal funds paid pursuant to any such grant will be used only for the purposes for which paid and in accordance with the applicable provisions of this title and the regulations thereunder;

"(2) the applicant will provide for such fiscal control and fund accounting procedures as are required by the Surgeon General to assure proper disbursement of and accounting for such Federal funds;

"(3) the applicant will make such reports, in such form and containing such information as the Surgeon General may from time to time reasonably require, and will keep such records and afford such access thereto as the Surgeon General may find necessary to assure the correctness and verification of such reports; and

"(4) the applicant will designate an advisory group, to advise the applicant (and the resulting regional medical complex and its component units) in formulating and carrying out the plans for the establishment and operation of such regional medical complex, which includes representatives of organizations, institutions, and agencies concerned with activities of the kind to be carried on by the complex and members of the public familiar with the need for the services provided by the complex.

"Grants for establishment and operation of regional medical complexes

"SEC. 904. (a) The Surgeon General, upon the recommendations of the Council, is authorized to make grants to public or nonprofit private universities, medical schools, research institutions, hospitals, and other public or nonprofit private agencies and institutions, or associations thereof, to assist in establishment and operation of regional medical complexes, including construction and equipment of facilities in connection therewith.

"(b) Grants under this section may be made only upon application therefor approved by the Surgeon General. Any such application may be approved only if it contains or is supported by reasonable assurances that—

"(1) Federal funds paid pursuant to any such grant (A) will be used only for the purposes for which paid and in accordance with the applicable provisions of this title and the regulations thereunder, and (B) will not supplant funds that are otherwise available for establishment or operation of the regional medical complex with respect to which the grant is made;

"(2) the applicant will provide for such fiscal control and fund accounting procedures as are required by the Surgeon General to assure proper disbursement of and accounting for such Federal funds;

"(3) the applicant will make such reports, in such form and containing such information as the Surgeon General may from time to time reasonably require, and will keep such records and afford such access thereto

as the Surgeon General may find necessary to assure the correctness and verification of such reports;

"(4) the applicant has designated an advisory group, described in paragraph (4) of section 903(b), to advise in carrying out the plan for the regional medical complex; and

"(5) any laborer or mechanic employed by any contractor or subcontractor in the performance of work on any construction aided by payments pursuant to any grant under this section will be paid wages at rates not less than those prevailing on similar construction in the locality as determined by the Secretary of Labor in accordance with the Davis-Bacon Act, as amended (40 U.S.C. 276a—276a-5); and the Secretary of Labor shall have, with respect to the labor standards specified in this paragraph, the authority and functions set forth in Reorganization Plan Numbered 14 of 1950 (15 F.R. 3176; 5 U.S.C. 133z-15) and section 2 of the Act of June 13, 1934, as amended (40 U.S.C. 276c).

"National advisory council on medical complexes

"SEC. 905. (a) There is hereby established in the Public Health Service a National Advisory Council on Medical Complexes. The Council shall consist of the Surgeon General, who shall be the Chairman, and the Chief Medical Director of the Veterans' Administration, ex officio, and twelve members, not otherwise in the employ of the United States, appointed by the Surgeon General, with the approval of the Secretary and without regard to the civil service laws, who are leaders in the fields of the fundamental sciences, the medical sciences, hospital administration, or public affairs. At least one of the appointed members shall be outstanding in the study, diagnosis, or treatment of heart disease, one shall be outstanding in the study, diagnosis, or treatment of cancer, and one shall be outstanding in the study, diagnosis, or treatment of stroke.

"(b) Each appointed member of the Council shall hold office for a term of four years, except that any member appointed to fill a vacancy prior to the expiration of the term for which his predecessor was appointed shall be appointed for the remainder of such term, and except that the terms of office of the members first taking office shall expire, as designated by the Surgeon General at the time of appointment, four at the end of the first year, four at the end of the second year, and four at the end of the third year after the date of appointment. An appointed member shall not be eligible to serve continuously for more than two terms.

"(c) Appointed members of the Council, while attending meetings or conferences thereof or otherwise serving on business of the Council, shall be entitled to receive compensation at rates fixed by the Secretary, but not exceeding $100 per day, including travel time, and while so serving away from their homes or regular places of business they may be allowed travel expenses, including per diem in lieu of subsistence, as authorized by section 5 of the Administrative Expenses Act of 1946 (5 U.S.C. 73b-2) for persons in the Government service employed intermittently.

"(d) The Council shall advise and assist the Surgeon General in the preparation of regulations for, and as to policy matters arising with respect to, the administration of this title. The Council shall consider all applications for grants under this title and shall make recommendations to the Surgeon General with respect to approval of applications for and the amounts of grants under this title; and such recommendations shall also be transmitted to any advisory council or committee, established by or pursuant to this Act, which the Surgeon General deems appropriate.

"Regulations

"SEC. 906. The Surgeon General, after consultation with the Council, shall prescribe general regulations covering the terms and conditions for approving applications for grants under this title and the coordination of programs assisted under this title with programs for training, research, and demonstrations relating to the same diseases assisted or authorized under other titles of this Act or other Acts of Congress.

"Report

"SEC. 907. On or before June 30, 1967, the Surgeon General, after consultation with the Council, shall submit to the Secretary for transmission to the President and then to the Congress, a report of the activities under this title together with (1) a statement of the relationship between Federal financing and financing from other sources of the activities undertaken pursuant to this title, (2) an appraisal of the activities assisted under this title in the light of their effectiveness in carrying out the purposes of this title, and (3) recommendations with respect to extension or modification of this title in the light thereof."

SEC. 3. (a) Section 1 of the Public Health Service Act is amended to read as follows:

"SECTION 1. Titles I to IX, inclusive, of this Act may be cited as the 'Public Health Service Act'."

(b) The Act of July 1, 1944 (58 Stat. 682), as amended, is further amended by renumbering title IX (as in effect prior to the enactment of this Act) as title X, and by renumbering sections 901 through 914 (as in effect prior to the enactment of this Act), and references thereto, as sections 1001 through 1014, respectively.

Mr. MANSFIELD. Mr. President, I move to reconsider the vote by which the bill was passed.

Mr. HILL. Mr. President, I move to lay that motion on the table.

The motion to lay on the table was agreed to.