

ORIGINAL

In the

Supreme Court of the United States

SIENEY A. DIAMOND, COMMISSIONER
OF PATENTS AND TRADEMARKS,

PETITIONER,

v.

ANANADA M. CHAKRABARTY,

RESPONDENT.

No. 79-136

Washington, D. C.
March 17, 1980

Pages 1 thru 40

Hoover Reporting Co., Inc.

*Official Reporters
Washington, D. C.*

546-6666

IN THE SUPREME COURT OF THE UNITED STATES

-----X
: SIDNEY A. DIAMOND, COMMISSIONER :
: OF PATENTS AND TRADEMARKS, :
: :
: Petitioner :
: :
: v. : No. 79-136
: :
: ANANDA M. CHAKRABARTY, :
: :
: Respondent. :
: :
-----X

Washington, D. C.,

Monday, March 17, 1980

The above-entitled matter came on for oral argument
at 1:06 o'clock a.m.

BEFORE:

WARREN E. BURGER, Chief Justice of the United States
WILLIAM J. BRENNAN, JR., Associate Justice
POTTER STEWART, Associate Justice
BYRON R. WHITE, Associate Justice
THURGOOD MARSHALL, Associate Justice
HARRY A. BLACKMUN, Associate Justice
LEWIS F. POWELL, JR., Associate Justice
WILLIAM H. REHNQUIST, Associate Justice
JOHN PAUL STEVENS, Associate Justice

APPEARANCES:

LAWRENCE G. WALLACE, ESQ., Office of the Solicitor
General, Department of Justice, Washington, D.C.;
on behalf of Petitioner
EDWARD F. MCKIE, JR., Schuyler, Birch, McKie &
Beckett, 1000 Connecticut Avenue, Washington,
D.C. 20036; on behalf of Respondent

C O N T E N T S

<u>ORAL ARGUMENT OF</u>	<u>PAGE</u>
LAWRENCE G. WALLACE, ESQ., on behalf of the Petitioner	3
EDWARD F. McKIE, JR., on behalf of the Respondent	18
 <u>REBUTTAL ARGUMENT OF</u>	
LAWRENCE G. WALLACE, ESQ., on behalf of the Petitioner	35

P R O C E E D I N G S

MR. CHIEF JUSTICE BURGER: We will hear arguments next in Diamond, Commissioner of Patents v. Chakrabarty.

Mr. Wallace, I think you may proceed whenever you are ready.

ORAL ARGUMENT OF LAWRENCE G. WALLACE, ESQ.,
ON BEHALF OF PETITIONER

MR. WALLACE: Mr. Chief Justice, and may it please the Court:

The question before the Court in this case is whether a living organism is patentable subject matter under Section 101 of the present patent law. This is a relatively narrow question of statutory interpretation and congressional intent, a question which does not, in our view, require the Court to resolve any of the much mooted current controversies about desirable public policies in the field of so-called genetic engineering.

QUESTION: We are pretty well bound by the statute in that area, aren't we, anyway?

MR. WALLACE: That is our view, Mr. Justice. But the question before the Court is a question of interpreting the statute.

The claims at issue were rejected by the Examiner and by the Board of Appeals but were upheld by the Court of Customs and Patent Appeals. They are claims drafted in various

forms to a living microorganism to what amounts to a laboratory-induced hybrid strain of bacteria combining in a single organism plasmids which are genetic units that are plasmids that are found in nature to exist only separately in separate strains of these bacteria. And the combination of these plasmids in the new strain enable that strain to degrade several components of crude oil simultaneously.

The Examiner allowed numerous related claims by the Respondent to the process for producing the new strain and claims to an inoculum combining the new strain with certain carrier material. Some of the rejected claims are also inoculum claims but in those claims the only essential element of the inoculum claimed is the new strain of bacteria itself without any carrier or mixture being specified and those are treated by everyone in the case as essentially claims on the bacteria, just variance of the basic claim for the bacteria.

QUESTION: I didn't understand the word you used, Mr. Wallace.

MR. WALLACE: Inoculum -- i-n-o-c-u-l-u-m.

QUESTION: Not "innocuous"?

MR. WALLACE: No. Inoculum, something to be inoculated; in this case not in a person but on an oil spill would be the idea of the claim.

Now, perhaps an examiner informed by this Court's

analysis in Parker v. Flook would have disallowed some of the claims that were allowed but none of those claims are at issue before this Court. There is no mechanism for administrative review of claims allowed by an examiner. The Board of Appeals in CCPA did not pass on the validity of those claims.

But the fact that the process claims were allowed here points up for us what no one really disputes here, that the patent law does apply to new technology, the whole purpose of the patent law is to encourage the development of new technology and to grant rights to inventors who discover new technologies but the claims involving those new technologies in order to be patentable have to be claims that come within the statutory categories established by Congress as the Examiner held the process claims did in this case, as well as the inoculum claims combined bacteria with specified carrier materials. And our basic contention here is that claims on living organisms themselves are not within the statutory categories established by Congress and therefore were properly rejected by the Examiner and the Board of Appeals here. And that is all that is at issue.

We start our brief -- the argument in our brief with a quotation from this Court's recent decision in Parker v. Flook that the Judiciary must proceed cautiously when asked to extend patent rights into areas wholly unforeseen by

Congress.

This case --

QUESTION: Mr. Wallace, do you think that when Congress passed the patent statute in the 1790's it foresaw telephone, radio, television and that sort of thing?

MR. WALLACE: Not at all, Mr. Justice, and as I just said we do think the patent law applies to claims involving new technology so long as the claims are within the statutory category.

QUESTION: I mean it was to reward inventors who saw things that Congress didn't see --

MR. WALLACE: Well --

QUESTION: -- that patent laws were passed.

MR. WALLACE: The reason I mentioned this sentence is because this case really involves a considerable variant on this sentence. We do not think we are talking here about an area wholly unforeseen by Congress. And for that reason the case is a little bit different.

QUESTION: Others don't think we are talking about an extension of the patent law, either.

MR. WALLACE: Well, we do think --

QUESTION: I know. You differ on that, that is the reason this lawsuit is here.

MR. WALLACE: Our contention is that this would be an extension unforeseen by Congress but not an area wholly

unforeseen by Congress, because for the last 50 years Congress has dealt quite specifically with hybridization of living organisms in patent statutes. And this is the heart of our case, that Congress has for 50 years built a statutory edifice on the premise that the language that is now in section 101 about patents on manufacturers or compositions of matter does not apply to living organisms and they have made specific provision for patenting of various categories of organisms with a great many exclusions and a great many specifically tailored provisions, all based on the premise that those categories are not included within the general authorization for patents on discoveries of manufacturers or compositions of matter.

QUESTION: Are penicillin and yeast patented?

MR. WALLACE: So far as I am aware there have been patents issued on some medicines involving living organisms but I don't know of any patent on a particular strain of yeast. There was a patent issued to Pasteur for an apparatus and method of purifying yeast and that included a claim on the yeast so purified without mentioning any specific strain which others would be excluded from manufacturing or using. Whether that patent was properly granted is something that no court has ever passed on. The question was recognized by the Court of Customs and Patent Appeals in this case to be a question of first impression.

QUESTION: I take it from your response that the patents listed on page 50 of your friend's brief running from 1873 to 1930 you think are not relevant to --

MR. WALLACE: We have dealt with all of those that preceded the 1960's in the appendix to our reply brief, Mr. Justice. But our basic contention is that the disputes among the parties about the actions of particular examiners in uncontested and unreviewed matters over a period of many years, there being some thousand examiners in the Patent Office today dealing with some 100,000 applications a year and there being almost 4,200,000 patents that have been granted cumulatively in the course of the years, that the disputes about what particular examiners have done in accepting or rejecting, allowing or disallowing particular claims are relatively inconsequential in this case in light of the specific attention that Congress has given the issue here and the fact that there has never been an articulated policy of the Patent Office to grant patents on living organisms brought to the attention of Congress and no indication that Congress ever acquiesced in any such interpretation of the law.

When this is combined with the history of the last 50 years of building a statutory edifice on the premise that patents cannot be issued on living organisms --

QUESTION: Living organisms would be products of nature, would they not?

MR. WALLACE: Many of them would be.

QUESTION: It is conceded and very clear that section 101 of the Act does not make patentable any product of nature.

MR. WALLACE: But what Congress has dealt with for the past 50 years are man-made hybrids that do not occur in nature and the extent to which patentability should be available on those organisms. And we start in examining this history of congressional treatment with the 1930 Plant Patent Act itself which amended what is now section 101 of the patent law to read as we have reproduced it on page 22 of our brief.

Before the 1952 recodification of the patent code for 22 years after the enactment of the 1930 law which is now section 101 read as is set forth on page 22 of our brief, saying any person who has invented or discovered any new and useful art, machine, manufacture or composition of matter or any new and useful improvements or who has invented or discovered and asexually reproduced any distinct and new variety of plant other than a tuber-propagated plant may obtain a patent therefor.

It is obvious to us on the fact of that that Congress was not operating on the premise that any distinct new variety of plant was a category already included within any new and useful manufacture or composition of matter,

otherwise the exclusion of tuber-propagated plant from the latter category would have ambiguities to it and could have been interpreted as a contraction of patent rights when Congress treated the Act as an expansion of patent rights. And this is not left merely to the face of the statute but in both House and Senate committee reports appended in full a letter from Secretary Hyde, the Secretary of Agriculture, stating -- we have set forth this letter on pages 24 and 25 of our brief -- stating very specifically that the purpose of the law is to bring reproduction of newly bred our found plants under the patent laws which at the present time are understood to cover only inventions or discoveries in the field of inanimate nature.

Now, various efforts are made to explain why this may not be a completely authoritative interpretation of the then existing patent laws but the fact of the matter is both houses appended this as Appendix A to their committee report. Those reports have only one other appendix, Appendix B, the text of the new statute. This is not a letter that is buried in a whole list of communications that are appended. There is nothing said in either report to cast any doubt on Secretary Hyde's interpretation of the then existing patent law. Indeed, the reports are entirely consistent with that interpretation and in particular both reports have an identical series of paragraphs which begin with the sentence

"Furthermore, there is no apparent difference, for instance, between the part played by the plant originator in the development of new plants and the part played by the chemist in the development of new composition of matter which are patentable under existing law."

And then there is for several paragraphs a comparison of the chemist's development of compositions of matter and the breeder's development of plants and the terminology is always used distinctively.

QUESTION: Going back to Secretary Hyde's letter, Mr. Wallace, what significance do you place on what would appear to be very carefully chosen words that at the present time are understood to cover -- "are understood" -- if there were holdings that were perfectly clear he wouldn't have used that language, would he?

MR. WALLACE: There was no court holding, that is correct. But Congress expressed no disagreement with that understanding and the whole point of our argument is not that it was settled law or that Congress ever articulated specifically that there is no other way to get a patent on a living organism but that Congress developed very carefully wrought statutes on the premise that these were the only ways that one was authorized to get a patent on a living organism and on the premise that what is now section 101 did not authorize such patents.

QUESTION: If you were looking for an expert of patent laws would you -- would the Secretary of Agriculture come to your mind right away?

MR. WALLACE: Of course he is not the foremost expert. He was the Cabinet official --

QUESTION: He is not necessarily an expert at all, is he? His expertise lies elsewhere, doesn't it?

MR. WALLACE: Well, he --

QUESTION: If any.

MR. WALLACE: He was informed. The record shows -- that we have produced in our brief by Patent Counsel -- he was involved in the sponsorship of this legislation because of the interest of plant breeders and hybridizers, all of whom approached him on the basis of advice from Patent Counsel.

In any event this is the premise on which the committee acted. No one in Congress on the floor or in the report questioned this premise. And everything that was written and said is consistent with this premise.

The next development was the 1940 Court of Customs and Patent Appeals decision which we cite in our brief in re: *Arzberger*, which interpreted the plant patent provisions of this paragraph as not covering a claim on bacteria. There was an effort to get a plant patent at that time on a micro-organism. It was rejected by the Court of Customs and Patent Appeals. No claim was made that it fell within the language

of the upper portion of the paragraph. They were all in the same paragraph at that time. Perhaps no claim could have been made because of the difficulty of meeting the description requirement for anything other than a plant patent.

But what is interesting from our standpoint is that no one on the Board of Appeals or the Court of Customs and Patent Appeals mentioned in passing or in any way that perhaps such an organism could qualify as a manufacturer composition of matter. The question was not reserved, the possibility didn't even occur to anyone in the course of that litigation.

QUESTION: At what date, now?

MR. WALLACE: 1940. This was 10 years after the Plant Patent Act was passed.

The next then ---

QUESTION: Is it not pretty clear that the developments in the 40 years since then have been of such magnitude that they would not have even been in the imagination of people at that time?

MR. WALLACE: The premise of that decision was that the claimant had devised in a laboratory a new strain of bacteria, the same claim being made by Chakrabarty. The claim was not rejected by the Court of Customs and Patent Appeals for obviousness or for lack of novelty. It was rejected because they interpreted the Plant Patent Act as not applying

to a claim for a bacterium. The question was whether a bacterium was a plant within the meaning of that Act and they said that was not what Congress had in mind, all excepting the premise that it was novel, useful and not obvious. There may be some question about that but that was the premise of the decision.

Then the next event chronologically was the 1952 recodification of the patent laws in which no question was raised in Congress or by the drafters about the validity of any of the premises on which the Plant Patent Act was enacted or had been interpreted and these provisions were separated out at that time.

The next event chronologically in this history of 50 years of congressional consideration of hybridization, and that is all we are involved with here, that the techniques in this laboratory are more sophisticated than the techniques of Luther, Burbank and the other plant breeders but what is produced is a hybrid living organism, basically the same kind of product.

The next event chronologically are the proposals leading to the Plant Variety Protection Act of 1970 and on page 14 of our brief in the first paragraph of Footnote 12 we mention the series of proposals by the Patent Bar. Some of them don't specify whether they thought existing.

law could not extend this far. Others do specify quite specifically, as this 1966 resolution of the American Bar Association Patent Section did, it was entitled "Extension of Patent System to Biological Arts Not Now Covered" and it favored coverage specifically for microorganisms and animal husbandry. And as a matter of fact in following up these many proposals -- we have recounted a number of them there -- we note on page 29 of our brief in Footnote 35 that in the course of consideration of the Plant Variety Protection Act a representative of this Patent Section of the American Bar Association referred to this series of resolutions and to bills that had been proposed at the behest and with the support of the ABA by Senator McClellan with respect to patent protection for microorganisms.

There had been bills introduced by him but no hearings held on them. And when the Plant Variety Protection Act was enacted it contained a specific exclusion for bacteria as well as for fungi and for first generation hybrids against this background of advocacy of inclusion of bacteria because of their lack of present coverage by the patent laws. And the reports that were issued at that time by the Congress in 1970 by both committees, the important paragraph is set out on page 28 of our brief, and those reports are much more specific in agreeing with the position that Secretary Hyde had taken in 1930 that no protection is available under the

then existing laws to varieties of plants which reproduce sexually, that is generally by seed. This was an extension of a patent-type protection that went beyond the 1930 Act which was limited to asexual reproduction which would have to be by cuttings or grafting and for the first time went into the field where there might be biological reproduction uncontrolled by the patentee or his licensees. And the limitations that were specified on the kind of patent protection to be given were much more extensive than the limitations under the 1930 Act which dealt only with asexual reproduction. And there were a number of exclusions. Okra, celery, peppers, tomatoes, carrots and cucumbers were specifically excluded by one provision.

The authorizing provision itself excludes fungi bacteria and first generation hybrids.

QUESTION: I take it there was no explanation in the legislative history of why this plant language was added to a predecessor of 101. On page 22 you refer to that language of 101 and you say that the very fact that Congress originally added the provisions to a predecessor of 101 strongly indicates -

Was there any ---

MR. WALLACE: There was no indication in the 1930 legislative history of why the language was being added to section 4886 of the revised statute rather than enacted separately.

But the -- the only explanation that occurs is the explanation that can be deduced from the committee reports which are appended to Secretary Hyde's letter that this was adding subject matter that didn't exist in 1886, adding to the categories of claims that could now be patented.

QUESTION: Isn't it equally arguable that this recital that you have been going over shows a state of uncertainty about the coverage?

MR. WALLACE: Well, that would be enough for us to win our case under this Court's decisions, because in the absence of a clear and certain signal the Court has said twice recently that the patent law should not be extended.

QUESTION: I am not talking about the statute now. I am talking about this statutory -- this legislative history.

MR. WALLACE: Well, --

QUESTION: That merely shows there was uncertainty at that time.

MR. WALLACE: There may have been uncertainty but there is no indication that anyone in Congress thought that patents could be secured other than under the Plant Patent Act and the Plant Variety Protection Act. There are many indications that persons in Congress thought they could not be.

Such guidance as we get from the legislative history is all in one direction. It is not air tight but there is

nothing to the contrary in the legislative history. Everything indicates that to the extent it was considered everyone in Congress was operating on the premise that patent protection for living organisms was not otherwise available. And they have built an edifice of specifically tailored statutory provisions over a period of 50 years on that premise.

I would like to reserve the balance of my time.

MR. CHIEF JUSTICE BURGER: Mr. McKie.

ORAL ARGUMENT OF EDWARD F. MCKIE, JR., ESQ.,

ON BEHALF OF THE RESPONDENT

MR. MCKIE: Mr. Chief Justice, and may it please the Court:

As my brother has said, the question here is whether a particular microorganism is patentable. This microorganism is useful in degrading, degenerating, eating up, if you will, oil spills, one of our real modern problems with respect to the ecology. A more useful art would be hard to imagine.

The Constitution provides for the Congress obtaining power to grant patents in order to advance the useful arts. I think it is conceded here that the constitutional power is there. The only question is whether the Congress has exercised that power. In our submission it has and it has in two different categories of statutory language.

It has provided for the granting of patents on new manufacturers.

It also has provided for the granting of patents on compositions of matter.

In our submission this bacterium developed by Dr. Chakrabarty is either one of those, perhaps it is both.

The Board of Appeals in this case made an express finding that this was not a product of nature. They also said that it was not expressly excluded by the statutory language.

In our submission that means that it was made by Dr. Chakrabarty, it represents something made by man and therefore not a product of nature and therefore a manufacture which can be patented under the existing patent law.

Now, in this case the Government's primary argument in the petition itself and in the initial brief --

QUESTION: Well, if you -- under 101 if you just discover a new microorganism is it patentable?

MR. McKIE: That depends, Mr. Justice White, on --

QUESTION: I mean you find it and you try to patent it just the way you found it.

MR. McKIE: If you mean that it existed previously in nature, I think you could not for the reason that it would have been a product of nature.

QUESTION: And where is that exclusion in 101?

MR. McKIE: It is not expressly mentioned. It is a court adjudicated --

QUESTION: Just one of those things in the air.

MR. MCKIE: I think that that is correct, Mr. Justice White.

QUESTION: It does not fall under any of the language of 101, does it? It is not a manufacture.

MR. MCKIE: Well, it --

QUESTION: You discover a composition of matter.

MR. MCKIE: I think that would be the closest, discover a composition of matter.

QUESTION: The word "discover" meant something else from what it means now.

MR. MCKIE: That may well be the case. The problem I think is whether it is an invention, and that is the problem that was addressed by the Congress in 1930. But that is a different problem than we are concerned with here. We are concerned with here something that was not merely extracted from nature and sought to be patented but rather something that was then acted upon by man to change an essential characteristic and to enable it therefore to degrade a number of components of oil simultaneously, which is something that the prior existing microorganisms could not do. It has been provided with an additional characteristic and I submit that under the decisions of this Court, particularly in *American Plant v. Brogdex* it qualifies as a manufacture for that reason.

We have here a finding of fact, in effect, by the

Patent Office administrative agency which is charged with making such findings, namely the Board of Appeals, that this was not a product of nature and it therefore is a manufacture and it is patentable in our submission as such.

Now, the prime position taken by the Government previously in this case has been that the policy of the Patent Office has always been to refuse to grant patents on living subject matter and that this represents a change of that policy, therefore an extension of the patent law into an area never previously foreseen by the Congress.

Now, we answered that argument by pointing out that there was no evidence adduced that showed that particular conclusion at all. There was no support for the contention the Government made.

Moreover, we brought forward several different kinds of evidence which do show that the policy of the Patent Office in the past has been to grant patents on living subject matter in appropriate circumstances.

Now, the Government appears to want now to step aside from that whole issue and they now say that their primary thrust is on a different issue entirely, namely the history of the Plant Patent Act and the Plant Variety Protection Act.

And our submission the reason they want to do that is we have shown that their initial premise in seeking

certiorari in this case is erroneous. The policy of the Patent Office has not been shown to have been contrary to granting patents on living subject matter. We have --

QUESTION: Your reference on page 50, the list of cases from 1873 to 1930 is directed at that point?

MR. McKIE: That is one of the items of evidence that we have adduced, Mr. Chief Justice. It is only one, however.

We have pointed also to a decision of this Court in the case of Funk v. Kalo, a 1947 case, I believe, in which a patent had been issued by this same Patent Office on bacteria. And that is what we are concerned with here. That patent was to a mixture of bacteria, the same kind of thing for which claims are sought here and the Patent Office in that case had granted the patent on the bacteria. It was found to be invalid in this Court for a different reason but not because it was directed to living subject matter. We referred to that case in our brief; the Government responded by saying well, that really was dealing with a different matter.

But the point is that it was claiming bacteria and it was claiming bacteria alone. So that there is an instance of the Patent Office not only having granted the patent but now seeking to say that that is not the situation that we are faced with here. In our submission it is the same situation

we are faced with here but for one point that makes no difference. The point is that in that case the bacteria were a mixture of different species, each of which was old. In this case we are dealing with a single species which is new. But they are both living things. If a patent cannot be granted on one because it is alive, then a patent cannot be granted on the other because it is alive.

But the Government appears now to take the position that the patented bacterium in the Funk v. Kalo case was ~~not~~ patentable even though it was alive.

I don't know whether you noticed the emphasis that was placed on a word in the argument by my friend here a little earlier and that was "alone" or "themselves." The Government appears now to have switched its position. They are now saying that in the case of claims to bacteria, micro-organisms alone, or themselves, then the policy has always been never to grant such patents, not the policy has been to refuse patents on living things. It is a totally different thing.

Now, we adduced proof of a number of different patents. Mr. Chief Justice, you just referred to that at page 50, I think, of our brief. There are some 68 patents in that list. The Government says as to most of those patents they are directed to old subject matter, as if that made it different. The subject matter is alive whether it is old or

not.

As to some 14 patents, and their brief and Footnote 2 is associated with this, in their brief they say as to those 14 patents they are directed to new subject matter but additional material beyond the living subject matter is claimed, as if that changed it. The subject matter is alive whether it has something combined with it or not.

My point really is that the living nature of the thing is not what has prevented it from being patented in the past. The Patent Office attitude has been to grant patents on living things if they met the other criteria such as not being products of nature.

Now, when somebody --

QUESTION: Can I interrupt you on that.

You disagree with their statement that, first of all there is a difference between a patent that includes a living thing as a component of the claimed invention and I guess they agree that could be patentable, if I understand them correctly

But when we confine ourselves to claims that cover only living things, they say only 3 out of your 68 patents involve such examples.

Do you take issue with that statement?

MR. McKIE: Yes, I would but only to a limited degree.

QUESTION: I see.

MR. MCKIE: Most of those patents do claim something in addition to the living thing. At least the patent in Funk v. Kalo --

QUESTION: Yes, I understand that.

MR. MCKIE: -- claimed only living things and the three additional patents that they refer to. There may be some others but I don't think the point is really worth exploring as to how many others.

But my point is that the thing does not become dead, unliving because it is combined together with something else.

Really I think the way this arose in the course of history in the Patent Office is as follows: Somebody came around with a new-found kind of bacteria. They found that it was useful in doing something. They went to the Patent Office with a request to patent this and the Patent Office said, "Well, no, you just took something that was found in nature, it is a product of nature."

Then, the applicant being rather inventive anyway, said, "Well, now, I will claim that together with something in which it is not found in nature. For instance I will claim it with an insecticidal carrier and now I have an insecticidal composition and you ought to grant me that patent."

And the Examiner says, "I must agree with you because

it is not found together with the carrier."

We have an illustration of that in this very case, because several of the claims in this case, the allowed claims, cover the combination of a bacterium with a carrier, namely straw. That bacteria is not found in straw in nature. Therefore it is not a product of nature but it is still alive.

Now, I don't think that the Government has justified the distinction between the two. And the reason I emphasize this is to point out that the policy of the Government until very recently here has been uniform and that is to not deny patents on living things but rather to deny patents on products of nature, whether they are living or not.

Now, in this case we have pointed out in addition to the number of patents that we have identified and also the cases that we have referred to we pointed out the Patent Office has established official classifications of patents on living things, the reason being of course that they have a sufficient number of patents that they want a place to put them. They have responded to our showing in respect of one sub class only. That sub class is embarrassing to them I think because it calls for patents on microorganisms alone, or themselves or per se. And that is where they are now reduced to in their position. They say microorganisms alone are not patentable. But we have pointed out that they have a sub class on microorganisms alone. Their answer to that is

that the international authorities wanted a sub class to be set up for that kind of thing, presumably because in a national patent law this kind of thing is permitted.

Then they also say, "Well, we have so many patents on living things that have been granted that we have to find a place to put them."

Now, we have also pointed as another form of evidence to the Board decision in one case, the Farr case that is identified in our brief, the reason for doing this is that they said in their brief after our response to their petition for certiorari pointed out that this kind of thing existed, they said, "Well, the Board of Appeals and the Commissioner have always had the policy that patents would not be granted on living things."

But we pointed to a Board of Appeals decision in which a patent was granted by that Board reversing an Examiner and that patent was directed to a living thing.

We have also pointed to Commissioner Watson's statement to a congressional committee. Commissioner was a Commissioner of Patents in the 'Fifties under the Eisenhower years and during his submission to the Congress he said patents are granted on cultures. Well, cultures are nothing but groups of microorganisms. They now seek to interpret that away by saying that he must have been referring to a process of doing something. But he doesn't say anything about

a process of doing something, he refers to cultures. And cultures were what was claimed in the patent involved in Funk v. Kalo, this Court's decision.

So I think that the evidence rather indicates that patents have been granted over many, many years on living things if, as I say, they met the statutory criteria in other ways.

This is not a case such as Parker v. Flook in which somebody seeks to extend the patent protection to a wholly different area. This is rather one in which patent protection has been granted over the years and now the administrative agency seeks to change that position. In our submission that is their job, to go to Congress and get permission for such a change.

I would like to refer for a few moments to the statutory history of the Plant Patent Act, because the Government apparently is now placing its primary reliance upon that point.

In 1930 we were at a situation, rightly or wrongly, in which patents were not being granted on plants. Plant breeders were desirous of obtaining patent protection for their work. They went to the Congress and asked for congressional authority for the Patent Office to grant patents on plants. They obtained such authority by way of the Plant Patent Act of 1930.

Now, whether or not the Patent Office should have denied patents on plants prior to 1930 is really not significant here but that appears to be what the Government is really saying. What the Government is saying is that the plant breeder was doing very much the same kind of thing as Dr. Chakrabarty. Well, I think they were doing something rather different, but I don't think it is worth belaboring the point.

The point, however, is that plants were not being patented prior to 1930 and the Congress provided for the granting of patents on plants. There is not one word in that entire statutory history that indicates that the Congress thought that patents could not be granted on living subject matter. It is just not there; it is not there expressly and it is not there impliedly.

Much is made out of Secretary of Agriculture Hyde's letter but that letter was relied on only for two things, which have nothing whatever to do with the statement which is quoted by the Government. That letter is relied upon by the congressional committees for the expertise that the Agriculture Department has in identifying varieties of plants and they are suggesting that the Patent Office may want to come to them for assistance in distinguishing between the various varieties of plants.

There is another point, which slips my mind at the

moment, which is expressly mentioned in the statutory history in the committee reports.

QUESTION: May I ask question on the 1930 legislation. I guess the Government in essence argues that if this case had been decided in your favor before 1930, that statute would have been unnecessary.

Would that be a correct argument?

MR. McKIE: No, I don't think it would be for this additional reason: The Patent Office attitude, as I say, has been to refuse to grant patents on plants. From everything we can determine, that refusal was based on the product of nature contention.

QUESTION: I understand that. And that would still apply if it were not a hybrid or something like that.

But how does that respond -- it doesn't necessarily answer the case in the bottom line -- but how does that respond to the suggestion that if you win here, if you had won this issue in 1927 or '28 there really wouldn't have been any need for a special plant statute.

MR. McKIE: Well --

QUESTION: You would have then demonstrated the Patent Office had been wrong in its narrow view of the statute.

MR. McKIE: I think not, and for this reason, Mr. Justice Stevens: The problem that the plant breeders were having apparently, and I can judge only by what happened rather

than the rationale of it, because I don't find the decision on the point, but the problem apparently was that they didn't think that a sufficient change was being made by man. What they thought apparently -- the Patent Office, rightly or wrongly thought that the work of the chemist that was referred to in argument earlier was quite different from the work of the plant breeder. The plant breeder was doing nothing but taking the seed from one and pollen from another and mixing them together and nature was doing the work.

Now, I say "apparently," because I can't justify the rationale. I do know that the Commissioner of Patents had said expressly in a very early opinion that plants were not patentable.

QUESTION: Do you contend that there is a different standard of patentability, whether it be novelty or invention or non-obvious or whatever the term might be, under the Plant Patent Act than there would be for living things like bacteria?

MR. McKIE: The Plant Patent Act calls for a different variety, which is a different kind of problem than unobviousness, I think. Not being from that particular field, I don't have sufficient experience in their problems to justify it; but the statutory requirement is different than it is in respect of regular patents. So that a bacterium, I think, has to comply with all of the requirements of the

regular patent law, which are novelty, utility and non-obviousness, as well as descriptiveness.

Now, that is another problem that the plant breeders had before 1930 and that was that the requirements of the patent law then, and still today except for plants, required that you describe the invention sufficiently that it could be reproduced. And you can't describe a plant sufficiently that it can be reproduced. So what happened in 1930 was that the Congress put in a special exception for plant patents and said, "You don't have to comply with that."

QUESTION: Are plants any harder to describe than bacteria?

MR. MCKIE: Yes, indeed. And one of the reasons is that in the bacterial area the descriptiveness problem has existed but it has been solved by a deposit system. What happens in the bacterial area -- we are dealing, after all, with microscopic, submicroscopic, perhaps, sizes of material -- you can put in a recognized depository, and we have at least two major ones in this country, a sample, a freeze-dried sample of the microorganism. And when you do that someone can go that agency and extract a sample and reproduce the invention by the use of that sample.

So with that deposit system it is possible to describe. But mere words would not be enough.

QUESTION: Prior to the Plant Act what would you

have said a new plant was, a composition of matter; you had discovered a new composition of matter? What would it have been?

MR. McKIE: I would think that but for the prior decisions which indicated that it was a product of nature, I would have claimed it as either a composition of matter or a manufacture.

QUESTION: And now that -- and after the amendment, section 4886, I suppose then there would be some kind of new plants that would not be patentable under that section, I mean that limited the patentability of the plants to those described in the section.

MR. McKIE: I would think that is a probable interpretation of the section.

QUESTION: Even though they might have been new compositions of matter.

MR. McKIE: Well, I think they would not have been, for the reason that they would have been products of nature. But that is a different matter. My point is that the -- probably the rationale for the Patent Office refusing to grant patents on plants earlier than that was that they were a product of nature and man had too little to do with the generation and the development of the plant to make it a manufacture rather than a composition of matter.

QUESTION: Before we had brand breeders -- human

beings -- wasn't this evolutionary process taking place in nature and when the human beings got into the act they accelerated it and refined it. But it was a natural process, wasn't it?

MR. MCKIE: I think that is correct, Mr. Chief Justice.

QUESTION: And that is why -- that is the basis of the rule that products of nature were not dependable.

Is that it?

MR. MCKIE: It may well be the case. I have never seen that elucidated but it sounds like a reasonable interpretation.

Mutations have been going on for, some people think, in the order of billions of years. And some people think that all of living things are based on mutations from one original parent. But it is the fact mutations of plants and of human beings have been going on naturally for many, many years.

I would like to make one further point about this deposit system, if I may, a point that was brought up by one of the brief's amicus and which I forgot to make in my own brief.

There is a merit to this deposit system that is very important with respect to the granting of patents. If patents are foreclosed in this particular area, then there will be incentive to keep the microorganism secret, trade

secret law would then protect the microorganism. And one would not deposit the microorganism with one of these deposit systems. With patent protection possible it is required by the patent law that there be such a deposit and therefore that the microorganism be available to future researchers. But if that availability of patents is removed and therefore the requirement to deposit is also removed, then it will not be possible to build research upon research, which is the way most research occurs. And there may well be a problem with respect to a failure in point of time of research.

Thank you very much.

MR. CHIEF JUSTICE BURGER: You have about three minutes left, Mr. Wallace.

REBUTTAL ARGUMENT OF LAWRENCE G. WALLACE, ESQ.,

ON BEHALF OF THE PETITIONER

MR. WALLACE: Respondent's bacteria were not produced from inanimate materials. They are hybrids of living microorganisms used in the laboratory which are similar to mutations that develop without hybridization in microorganisms just as hybrid plants are similar to mutations that develop in plants without hybridization. Mutations are very commonplace among microorganisms and these particular organisms were produced by a process of laboratory-induced natural conjugation where the plasmids moved between living microorganisms.

QUESTION: But the resulting microorganism did not

occur in nature.

MR. WALLACE: That is correct; that is what it has in common with the products of the plant breeders.

What is significant, as we see this case, when one looks at the Plant Variety Protection Act where we first have Congress dealing with organisms that can be biologically reproduced on their own we have a number of protective provisions. Farmers can save their seed and replant it and sell it to other farmers for replanting. There is a protective provision to use the seed for research purposes. There is a provision that the Secretary of Agriculture can impose compulsory licensing if he thinks the public interest warrants it.

QUESTION: Your colleague suggests that at this stage of the case that absence the Plant Protection Act that you have in effect abandoned your argument that any living thing cannot be patented.

MR. WALLACE: We haven't abandoned it at all. Before 1930 we know of no instance of a grant of a patent on a novel organism itself. There were grants on combinations but not when the novelty claimed in the combination was novelty in the living organism and only in a living organism. Process patents have been granted and process involving microorganisms since before it was known what microorganisms were: canning, brewing, etc.

QUESTION: Process involved only an organism.

MR. WALLACE: Well, the use of an organism in combination with other materials and the process would specify that.

QUESTION: What is the difference; what is the significance?

MR. WALLACE: The significance of the difference is that if you exclude others from being able to produce a living organism or to offspring of the organism because someone is granted a monopoly on the organism itself, it is an unprecedented extension of patent monopoly to the biological offspring of living organisms. And Congress has very carefully controlled this in the Plant Variety Protection Act where without equivocation the committee report said that the existing patent law did not cover living organism and if the Court of Customs and Patent Appeals were upheld in this case and a large number of patents were required to be issued before Congress could devise a proper system to deal with the new technology here, then rights and equities would be built up which would implicate Fifth Amendment taking problems which would require Congress to consider grandfathering, to consider treating similarly situated people differently and so forth, where there is no indication that Congress ever provided for this kind of monopolization.

QUESTION: If one looks -- putting that immediate

problem to one side -- if one looks at the basic reasons for patents and the encouraging of research and development and also encouraging disclosure of those things that have been discovered, what is the essential difference between bacterium and some new chemicals, say a new acid?

MR. WALLACE: Well, the essential difference is the bacterium like other things engages in genetic cellular reproduction which in the case of a microorganism means re-producing the entire organism. And the claims itself show that these grow in profusion. As a matter of fact the original ones probably don't exist very long after they begin to divide and grow. And what you really have are not what were produced in the laboratory but the generational offspring of those.

QUESTION: You fear incubation of the spores or something of that nature?

MR. WALLACE: Well, it isn't a fear. It may not be true of this particular microorganism, that it would spread. But we are talking about a category of patentable subject matter and when Congress first dealt with the possibility of biological organisms that could reproduce themselves they did it in a way that provided for many safeguard. Perhaps they would want more safeguards in light of newer developments.

QUESTION: I suppose if these are patentable then every time they reproduce they infringe the patent, don't

they?

MR. WALLACE: Well, there are difficulties of --

QUESTION: Well, wouldn't that be technically correct?

MR. WALLACE: -- fitting into the conception of the present patent law. That is correct. Or people who in some way facilitate their reproduction would be manufacturing them within traditional concepts of the patent law. They don't fit very well and this is one of the points that we made in our reply brief. But the incentive that Mr. Justice Stevens asked about is certainly, in our view, there in the process claims that were allowed the Examiner right here. But that doesn't mean that someone else might not be able to find another process for reproducing a similar living organism and be excluded by the grant for this process.

We do think the patent law does allow for claims within the statutory categories on this technology but not --

QUESTION: Do they have a patent issued for the process of putting one of these -- putting these plasmas in one of the microorganisms and creating a new microorganism, the process of doing it? I suppose --

MR. WALLACE: The particular process --

QUESTION: -- whether it was feasible or not as a legal matter you have indicated that that kind of a process patent would be all right.

MR. WALLACE: They were allowed in this case.

QUESTION: They were allowed.

MR. WALLACE: They were; there were numerous process claims that were allowed in this case. And they were on the process of inducing in the laboratory this hybrid organism. The claims that were rejected were only the claims that attempted to get the patent on the organism itself.

MR. CHIEF JUSTICE BURGER: Thank you, gentlemen, the case is submitted.

- - -

RECEIVED
SUPREME COURT, U.S.
MARSHAL'S OFFICE

1980 MAR 24 PM 4 21