ORIGINAL

In the

Supreme Court of the United States

SIDNEY A. DIAMOND, COMMISSIONER OF PATENTS AND TRADEMARKS, Petitioner,	)	
V.	)	No. 79-1112
JAMES R. DIEHR, II, AND THEODORE A. LUTTON, Respondents.	)	

Washington, D.C.
October 14, 1980

Pages 1 thru 38.

IN THE SUPREME COURT OF THE UNITED STATES

SIDNEY A. DIAMOND, COMMISSIONER OF PATENTS AND TRADEMARKS,

Petitioner,

v. No. 79-1112

JAMES R. DIEHR, II, AND THEODORE A. LUTTON,

Respondents.

Washington, D. C.

Tuesday, October 14, 1980

The above-entitled matter came on for oral argument at 1:27 o'clock p.m.

BEFORE:

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

APPEARANCES:

LAWRENCE G. WALLACE, ESQ., Deputy Solicitor General, Department of Justice, Washington, D.C. 20530; on behalf of the Petitioner.

ROBERT E. WICKERSHAM, ESQ., Owen, Wickersham & Erickson, P.C., 433 California Street, 11th Floor, San Francisco, California 94104; on behalf of the Respondents.

C O N T E N T S

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P R O C E E D I N G S

MR. JUSTICE BRENNAN: We'll next hear No. 79-1112, Diamond v. Diehr.

Whenever you're ready, Mr. Wallace. Are you ready, Mr. Wickersham? You may proceed, Mr. Wallace.

MR. WALLACE: Thank you, Mr. Justice Brennan.

ORAL ARGUMENT OF LAWRENCE G. WALLACE

ON BEHALF OF THE PETITIONER

MR. WALLACE: This case is factually very similar to Parker against Flook.

QUESTION: Mr. Wallace, let me -- since you've had a half-hour of argument and are going to have another half hour, I feel more at liberty to interrupt you at the very beginning. Let me ask you the same question that I did of your opponent in the prior case, do you think the patent law of 101 is different for computers than it is for other patentable objects?

MR. WALLACE: I don't think it's different for computers. As I mentioned in the last case, there have been patents issued on new computer machines. This case cites examples of patents that have been issued on processes involving the use of a computer as being the prior art that anticipated everything claimed in this process other than the algorithm, the new program.

QUESTION: Incidentally, what is an algorithm?

MR. WALLACE: Well, we've talked about this in

the past. The Court defined it in Benson. We have given a definition in our brief in Bradley from a manual on computers. For purposes of dealing with the computer technology, we roughly equate it to a computer program, because it's a sequence of step-by-step mathematical sequences to be performed by the digital computer. Of course, it operates only in a mathematical fashion.

QUESTION: The word has a much broader application.

MR. WALLACE: There is a broader definition in Webster's. We've attempted some in our brief in Bradley, to state that we're not trying to use the word in an all-embracing fashion which would extend to some valid process patents, as we understand what process patents are, but we're confining it to the solution of a sequence of mathematical steps. The program is a sequence of mathematical steps, which is the only thing that a digital computer can function, with respect to --

QUESTION: Did Chakrabarty involve a process, a composition of matter?

MR. WALLACE: It was a claim on a composition of matter rather than a process.

QUESTION: When you compose disparate elements, is that -- ?

MR. WALLACE: Well, in one sense, any machine or any composition of matter is a process. But for purposes of patent law, the two are in separate categories. Scientifically, it's

true that process is involved in any of them.

QUESTION: But this is a machine patent in the terms of the patent law?

MR. WALLACE: That was true in the preceding case. In this, the present case, the Diehr case involves a process claim. It's much closer in form --

QUESTION: To Flook.

MR. WALLACE: -- to Flook, and differs in that respect from Chakrabarty.

QUESTION: Now, in Flook the Court summarized its own holding by saying, very simply, "Our holding today is that a claim for an improved method of calculation even when tied to a specific end use is unpatentable subject matter under Section 101." That's the way the Court itself summarized its holding.

MR. WALLACE: That is the last sentence of Footnote 18 of the opinion.

QUESTION: Right.

MR. WALLACE: And that is the sentence that the Court of Customs and Patent Appeals has accepted as the limit of the holding.

QUESTION: That's what the Court said its holding was.

MR. WALLACE: Well, I understand that. What we regard as the interpretation of Section 101 that I've referred

to in Flook is in the two paragraphs of the text of the Court's opinion, on pages 593 and 594 of that volume. And that is the portion of the opinion that the Court of Customs and Patent Appeals has declined to follow in analyzing subsequent cases, instead relying on this sentence that you just read, Mr. Justice, from a footnote in the opinion.

QUESTION: Well, the Government thought that in the Chakrabarty arguments that the Court of Customs and Patent Appeals hadn't followed Flook but really didn't seem to have the credence to go with that.

MR. WALLACE: I'm aware of what the arguments were last term in Chakrabarty. I see nothing in the Court's opinion, however, that really has much bearing on the issue in this case, Mr. Chief Justice.

QUESTION: Well, what about the statement in Chakrabarty that "Flook did not announce any new principle that inventions in areas not contemplated by Congress when patent laws were enacted are per se unpatentable"?

MR. WALLACE: There's no such contention before the Court in the present case by any party, but I don't see that there's much bearing here.

QUESTION: Aren't you pretty close to that, your argument?

MR. WALLACE: I thought what we were arguing is that this Court's interpretation of Section 101 in Flook

requires an inquiry to be made in the processing of patent claims to see whether the claim of novelty inheres in a scientific principle, formula, or other aspect of what this Court has referred to as "the basic currency of technological advance," which cannot be preempted through patent claims.

And what was at issue basically in Flook, as we understand it, was whether the questions of novelty and obviousness under Sections 102 and 103 would be the only possible limitations on efforts to exclude others from the use of scientific principles and mathematical formulas. And if those were related to end uses in the patent claims and the inquiries under 102 and 103 showed them not to be obvious and to be new, then others could be excluded from using those scientific principles in relation to those particular end uses; or whether Section 101 precluded claimants from trying to exclude others from the use of these basic elements of scientific knowledge even though they have novel claims to it.

QUESTION: Well, I don't see -- Mr. Wallace, I didn't understand that was what was at issue in Flook and I'm not sure that the Court understood it that way. As Justice Stevens has suggested by his question this morning, what Flook decided was, where the only claim of the applicant for a patent is something that's just a better method of calculating, you can do it faster on a computer than you can do it with a pencil and paper, for example, then that's not patentable subject matter under 101.

Despite the dissenting opinion, the Court's opinion had nothing to do with the interrelationship of 101 and 102 and 103, did it say anything about it?

MR. WALLACE: Well, it did. At the bottom of page 592 of Volume 437.

QUESTION: I'm not the best one in the world to say what Flook meant, because I didn't agree with it.

MR. WALLACE: The Court specifically addresses this question: "Respondent argues that this approach" -- namely, the Court's approach -- "improperly imports into Section 1 the considerations of inventiveness which are the proper concerns of Sections 102 and 103. This argument is based on two fundamental misconceptions..." Then the succeeding two paragraphs are what we consider to be the heart of this Court's interpretation of Section 101 adopted in the Flook case, and which is the bone of contention here.

Unless the Flook holding is to be merely a guide to the drafting of claims, obviously anyone can avoid drafting his claim so that the only thing claimed is the new formula or new scientific principle, and the Board of Patent Appeals, in order to make the holding something meaningful, has, we think, quite rightly construed it necessarily to mean that they have to analyze the claims to see whether the only thing that is novel in the claims is the scientific principle, formula, or other fundamental truth.

QUESTION: Well, isn't it pretty well settled that the scope of a patent is to be measured by the claims of the applicant?

MR. WALLACE: Well, they do measure it by the claims but they analyze the claims in light of the prior art, and it's all part of the examination of the prior art.

QUESTION: The prior art has something to do with novelty and obviousness and things like that.

MR. WALLACE: It does. The Patent Office makes the inquiry for Section 101, 102, and 103 purposes all in the same examination of prior art. But even if there's a claim to a novel, unobvious formula or scientific truth involved, if that's the only novelty that inheres in the claims in light of that examination of prior art, then it's not patentable subject matter under Flook. That is our understanding of Flook. Otherwise, Flook becomes nothing but a guide to the drafting of claims and scientific principles and formulas will be precluded through skillful drafting of patent claims.

The reason we brought Flook to the Court in the first place was because Benson had left this question unclear and had gone strictly with the CCPA on it.

QUESTION: Mr. Wallace, when would -- when could you get a patent for a process or a machine that as one of its elements has unpatentable subject matter in it? You don't say that just because a patent, the claims of a patent include

an element that's unpatentable, that there's no patent?

MR. WALLACE: No. Of course, if there's novelty other than novelty in the scientific principle or fundamental truth, then, of course, it's a proper claim under 101 --

QUESTION: Well, what if there's no novelty --

MR. WALLACE: -- and then their question of obviousness and so forth is addressed.

QUESTION: Well, what if you take the elements apart and you don't find any novelty in any one claim or one element except in the unpatentable subject matter, but there's novelty in the combination? Can that --

MR. WALLACE: There can be novelty in a combination that will support a patent.

QUESTION: You don't think either one -- here you say there's neither novelty in any other element nor in the combination?

MR. WALLACE: Nor in the combination. The finding is that the novelty inhered only in the program itself --

QUESTION: It's another Flook.

MR. WALLACE: -- and that is our position.

QUESTION: Well, what, Mr. Wallace, if an applicant for a patent said -- it's a machine that previously, all previous machines had used spring-wind, spring-wound mechanisms to open a gate, say. And this applicant said, the difference now in this combination is that I use gravity to do it.

Would that be patentable or not?

MR. WALLACE: Sounds to me as if it might not be, but it's hard for me to know --

QUESTION: Well, would it be -- or not?

MR. WALLACE: -- just on the basis of that hypothetical, but gravity is not --

QUESTION: Everything else is the same but I've worked out a way to use gravity to do this. It used to be expensive and cumbersome --

MR. WALLACE: Well, then you say you've worked out a way, if that way is something different from the previous way --

QUESTION: The difference is, it uses gravity and it used to be spring-actuated.

MR. WALLACE: But if the gravity is used in precisely the same way as the spring action and there's nothing novel except the use of the scientific principle for --

QUESTION: All for the same purpose; to open the gate.

MR. WALLACE: -- the same purpose may not be in the same way. Seems to me that that --

QUESTION: Would that be patentable or not under your argument?

MR. WALLACE: It would depend on the answer to whether it was being used in the same way as the spring.

If it were it would not be patentable, and if it were not, it would be patentable subject matter. I think that is the basic meaning of Flook, that there has to be some novelty other than a novel scientific principle. And indeed, there can be a valid claim under Section 101 even if the scientific principle is not novel, but if a conventional scientific principle is used in a novel way. The Court recognized that in the opinion of Flook. It happened that it was a novel scientific principle in Flook.

QUESTION: Does that distinction make any rational sense at all, to say that a known scientific principle can be patented but an unknown one can't be?

MR. WALLACE: No, it isn't the principle that can be patented, it's only the new use of it. I mean, most inventions involve new use of familiar substances, principles, or ways of going about things, where it's building on existing technology. The effort in Flook was to prevent the patent system from being used to preempt others from using the scientific principles, even for particular end uses. And that's what I thought was the prevailing view in this Court in deciding the case and explaining the basis for its decision.

QUESTION: Mr. Wallace, there are some writers who purport to be authorities on the subject who said that what the central element of Flook was that when the courts are dealing with areas not foreseen by Congress, the Court should

go very slowly and that was reiterated in Chakrabarty. What do you have to say about that?

MR. WALLACE: That is not our position. I can't really be responsible for what other writers might have to say about Flook. Our position is the one stated in our briefs and in the course of our argument, that Flook involved an interpretation of Section 101 of the patent laws which Congress is free to change if Congress is dissatisfied with it, and I think that under its established jurisprudence the Members of this Court should adhere to that interpretation until Congress sees fit to change it. The interpretation is laid out on the pages of the United States reports.

QUESTION: Then Chakrabarty was a dubious holding under your present view?

MR. WALLACE: I don't see that Chakrabarty undertook to repudiate that interpretation of Section 101, Mr. Chief Justice. I understand that the Government argued for a contrary result in Chakrabarty, but I think that the result reached in Chakrabarty is entirely consistent with the Court's interpretation of Section 101 in Flook --

QUESTION: Well, is the end result of the Government's position that no computer program is patentable? That isn't -- this Court has said that --

MR. WALLACE: Well, the program's been --

QUESTION: -- has so far said that it wasn't holding

that, but your result sounds like you suggest that should be the new result.

MR. WALLACE: We refer to the prior art here, the Gould and Davis patent referred to on pages 8 and 9 of our brief in this case. Those patents described a similar process to the one claimed here and as we mention on page 9, suggested using a computer device to determine the state of cure. That was a novel process on which a patent was issued and there are many novel processes involving the use of computers on which patents do issue and patents can be valid.

We're not saying that the use of a computer in a process means that the process is not a patentable process under 101.

QUESTION: No, but -- I understand that but you are now answering a different question than I asked you.

MR. WALLACE: Well, the computer program itself would not be patentable.

QUESTION: Nor any other computer program that you can think of?

MR. WALLACE: For a digital computer, that is correct, because it involves a sequence of mathematical steps.

QUESTION: Whether it was described as a machine patent or a process patent?

MR. WALLACE: Whether the program was described either way, that is correct, Mr. Justice. Computer machines

are patentable, novel machines. And indeed the Coulter machine in the preceding case was patented and is the basis for the Honeywell computer that's being manufactured. The question is whether adding a program to it results in another patentable machine, which in effect would extend the life of the patent as we see it. I don't want to argue the preceding case, but we're not taking the position that either processes or machines are not patentable simply because computers are involved. That's a distortion of our position that's raised by some of the amicus briefs. It obviously is not our position.

I think I've made clear our understanding of what the Court accomplished in Flook and the reason why Flook was here. The dissenting opinion in Flook, as a matter of fact, concluded with a reference to a number of pre-Flook decisions of the Court of Customs and Patent Appeals interpreting Benson and referred to those as presenting the same basic issue.

In looking at those cases again and comparing them with the present opinion and other post-Flook opinions of that court, the striking thing to us is, how little difference there is in the analysis approach an approach being used by the Court of Customs and Patent Appeals.

Prior to the decision in Flook that court took the view that the holding in Benson was really limited to an effort to wholly preempt a mathematical formula. The same basic

analysis has been used in subsequent cases, although the Court does recognize that under Flook if the claim is on the mathematical formula, even though it may not wholly preempt it because it's limited to particular end uses then Flook does have to control that kind of case. But the kind of analysis described in the portions of the Court's opinion that I've referred to in detail here, when it's used by the Board of Appeals, as we think it should be under this Court's decision, has been criticized by the Court of Customs and Patent Appeals and they have really limited the holding to those two basic propositions, that if the claim is of a mathematical formula or would wholly preempt a mathematical formula, then those decisions would preclude the granting of a patent. Otherwise the analysis should proceed the way it did in the pre-Flook cases.

And that is what we seek clarification of in bringing these cases here today, because our understanding of the Court's interpretation of Section 101 in Flook and what we were asking the Court to do in Flook is quite different from that. And the way the Patent Office has been administering Flook is quite different from that.

I think I'd like to reserve --

QUESTION: Well, before you sit down, let me just ask a question about the difference between this case and Flook. Flook suggested that the analysis would proceed by assuming

that the formula was in the prior art or was well known and then looking for something else that was claimed to have been discovered.

Here everybody agrees that the formula for figuring out how long to cure the rubber was well known. The -- I forget the name of the formula -- but that was well known. As I understand it, the claim is that it was a new idea to realize that a computer could make use of this well-known formula when it was attached to measuring devices within the oven and cause this desired result to occur. I suppose they're claiming that discovery of the fact that a computer and the appropriate program will do something that could be figured out before is itself proper ground for getting a patent, which is a little bit different than the issue in Flook.

MR. WALLACE: To the extent that was the claim, the Davis and Gould application referred to on page 9 of our brief had described the use of a computer to do this similar thing. And what the Board found here to be the contribution, to be the novel thing, was the devising of the computer program. Both the Board and the Court of Customs and Patent Appeals agreed that the application indeed disclosed a computer program. The Board found that to be the only contribution, the only novel thing in light of the prior art in this application. The Court of Customs and Patent Appeals refused to pass on that question because it thought that inquiry was beside the point.

QUESTION: As a case involving the creation of a new computer program to implement a well-known formula.

MR. WALLACE: That is what this case --

QUESTION: That's what you'd --

MR. WALLACE: Yes; in a conventional process. It's programming a computer so that the computer can be used in a conventional process to implement a known formula, and using the conventional way of programming a digital computer, which is a sequence of mathematical steps.

I'd like to reserve the balance of my time.

MR. CHIEF JUSTICE BURGER: Mr. Wickersham.

ORAL ARGUMENT OF ROBERT E. WICKERSHAM

ON BEHALF OF THE RESPONDENTS

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

The case does indeed involve the statutory construction of Section 101 and the word "process" and we're all agreed on that.

Both Gottschalk v. Benson and Parker v. Flook make it clear that one index of having a process which is patentable subject matter is the transformation of state, changing something from one thing to quite another thing. Now, this messy, circular piece of uncured synthetic rubber is our starting material, or one of the starting materials. I don't know that you can use it for anything except to make something

else out of it.

QUESTION: You're using it very effectively.

MR. WICKERSHAM: This is the resultant -- thank you, Judge -- this is the product as it comes out of the mold, bonded to a metal ring and changed permanently, both chemically and physically to an entirely different shape which it will hold, and to a chemical state that will enable it to obtain the desired rigidity and other characteristics so that it will operate. This particular device is used as an oil seal, or shaft seal to prevent oil from running out of a railroad roller bearing and thereby having the bearing burn up and stop the whole train.

QUESTION: Well, it has other uses too, I take it?

MR. WICKERSHAM: Here is a small one, a piece of "prets," still substantially useless. And here is the precision product made from it. This one has been trimmed, the other one had not. This is used on an automobile. And those of you who have had to replace a transmission due to a faulty oil seal or perhaps a wheel bearing or something will bear in mind that this is an important use of the product. This is what my client mainly makes. It does make some other products, such as O-rings, which are used in some other places. But basically the process that we're involved with, and the whole purpose of the process, is to change this floppy, rather useless material as it stands, into a completely different

state or thing. And that is done by a process known as molding under pressure with heat.

The fact is that chemicals can often change from one chemical to another just by the application of heat. That is what we are getting here. Technically it's called cross-linking. But the fact is that when we come to cure it we run into problems, and our problem was that curing became mainly a matter of guesswork.

We have this equation, it's called the Arrhenius equation. I don't expect you necessarily to remember the name. He was a distinguished Swedish chemist and he received the Nobel prize, not for the equation, perhaps, but for his work, and this was one of the good fruits of his work. It's admittedly very old. We could use that before, and we could calculate with or without a computer or calculator how long we thought it would take to cure. But we really didn't know what temperature the mold was at.

We heat the mold but molds have to be opened to put the material into them. So we'd open the mold and the operators would take different times to fill the mold. A typical cavity might have 64 or 128 cavities, all to be filled. It might have somewhat fewer. You close the mold and start the time going. It may be at a different temperature from one operation to another.

A thermostat -- there are two thermostats are on the

machine, and when it reaches a certain critical temperature, the upper end of the temperature-curing range, the thermostat cuts it off and it begins to cool again until it reaches the thermostat at the lower end of the range and then heat comes on again, and it goes on and off, and on and off, during the curing process. But what temperature is the material at in the mold? Well, we don't know unless we actually find some way of measuring it in the mold.

And when we do, we find that it's at different temperatures at different times. Now, the thing that this invention found as a use for a digital computer is that combining that with a constant temperature monitoring located in the mold, but not at the cavity, but near the cavity, would enable us to get readings often -- well, constantly, in fact, and to calculate them segment by segment all through. So when the mold's warming up, it's being calculated. That time doesn't result in very much cure but it has some and we know what it was at. When it gets up into the range it's calculated each time at the temperature that it is now.

And this constant reading of the temperature by a, in a means that will not injure the product combined with the constant recalculation, not just a calculation -- because if we got just one calculation, we wouldn't be any better off than we were before, to enable us to get a better product --

QUESTION: Would you help me out at this point?

MR. WICKERSHAM: Yes, Mr. Justice Blackmun?

QUESTION: What is the difference between your claimed method for updating cure time, so to speak, and the method for updating the alarm limits held unpatentable in Flook?

MR. WICKERSHAM: Well, there are quite a few differences in there. The first is that our claimed method is a claim for a process for molding a precision synthetic rubber product, whereas, as noted in the majority opinion particularly, the alarm limit is a number and the claim was directed in that, to calculating a number and then by some means or other which could have been manual simply resetting the alarm, which is a post-solution step.

In that case the only novelty was said to be the equation. In our case the equation is certainly not novel. We contend that the combination has been held novel by the examiner since he withdrew his 103 rejection on the grounds of obviousness, and he never did make a 102 rejection showing that he didn't believe that there was any lack of novelty in our case. Does that answer the question, Mr. Justice Blackmun? I don't want to answer something you didn't ask, instead.

QUESTION: Well, that's an answer. I don't know whether it satisfies me, but it's an answer.

MR. WICKERSHAM: Very good; all right.

QUESTION: I am having difficulty distinguishing

this case from what the Court held in Flook.

MR. WICKERSHAM: I see. Well, I have -- I feel I have very little difficulty in doing that, because, in the first place, we have a process that really changes a material object. They didn't have that. You see, we're not claiming a number. And we're not manufacturing numbers. We're not manufacturing digits or binary coded decimal digits or a mathematical calculation.

QUESTION: Well, what's new about your process? You told us that it's an old idea to cure this, so what's the -- apparently there's some novelty in the use of the computer or not?

MR. WICKERSHAM: Although novelty is not supposed to be a question --

QUESTION: I understand.

MR. WICKERSHAM: -- on a 101 issue, I'll certainly tell you. The novelty in it, which resides in the invention as a whole, is the combination of constant temperature reading at a place where it will not injure the product, combined with constant recalculation.

QUESTION: Using the computer?

MR. WICKERSHAM: Using the computer. Oh, there's no other way to do that good calculation that I know of. I mean, you could get a mathematical genius to do it mentally; it wouldn't help the novelty of the case any.

QUESTION: But if the only novel element in here was the use of the computer?

MR. WICKERSHAM: Well, Mr. Justice White, if that was it, I don't think I'd have gotten this far.

QUESTION: No, you certainly wouldn't. You wouldn't be here, would you?

MR. WICKERSHAM: I wouldn't.

QUESTION: Mr. Wickersham, isn't it true that the process was all well known except the problem of knowing when to stop cooking? When to open the oven?

MR. WICKERSHAM: Not exactly, Mr. Justice Stevens. The problem in the sense of knowing that you wanted to get an exact cure and knowing that if you knew the time when you had an exact cure you could open it, that certainly, that part of it was known. But up to this time the recalculation at frequent intervals was not at least made use of, so far as I can tell. Of course, that's more of a novelty --

QUESTION: No, I understand that, but what the recalculation at frequent intervals does is tell you the precise moment when you should discontinue the curing process.

MR. WICKERSHAM: That is true.

QUESTION: Which in effect could be described as a number, because it's a certain number of minutes or seconds from the time you started the cooking.

MR. WICKERSHAM: I don't think we ever know the

number; we know the product.

QUESTION: They didn't in Parker against Flook either, until they got -- they kept updating it and it's a constantly changing number. But this is also a number that you don't know of until you get there, until these two factors coincide. Isn't that right?

MR. WICKERSHAM: It could be expressed as a number, Mr. Justice Stevens. Actually, I don't believe in our process that we ever bother with what the number is.

QUESTION: I understand.

MR. WICKERSHAM: Once our prime time is reached, the mold opens, it's done, and we take the thing out before it overcures. Of course, earthquakes can be expressed as numbers but they're not numbers.

QUESTION: Is it correct that if you had all the monitoring devices and they transmitted the temperature and time onto a screen, constantly changing so that you could always look at it, and you had a mathematical genius who could do this formula in a second or two, you wouldn't need the computer?

MR. WICKERSHAM: That's true, that's true. They might cost more than the computer these days, but that's true.

QUESTION: I understand.

QUESTION: Well, don't most inventors begin their inventing work trying to solve a particular problem rather

than just sitting down and saying, what will I invent today?

MR. WICKERSHAM: Mr. Justice Rehnquist, you are completely right. Very few inventors just think about what they want to invent. Some do, but very few. And this was made to solve a problem. As you may have noticed, we've made more than $400 million worth of these products since we did it and it saved us about $25 million, which isn't bad.

The problem that we had, for one thing, was that by, when we overcured, as we had to do if we were going to make sure it was not undercured, that we tied up all our machines. And so we've been able to increase production perhaps by ten percent at least, I understand, maybe more than that. It's not quite clear, but the idea is, we've gotten much better products and we can produce more of them in the same time from the same machines. I think that's a very substantial indication that there's something here that would be patentable.

QUESTION: Well, that's an indication of utility.

MR. WICKERSHAM: It is, it is. It's an indication also that if you could do it beforehand you'd have done it beforehand.

QUESTION: Well, that's what utility is.

QUESTION: Mr. Wickersham, if one of your competitors were to hire the mathematical genius I described, would they be infringing?

MR. WICKERSHAM: I don't think they would, the way

our claims are worded, but it would be an interesting case. I think, as you'll notice, our claims as stated, except for Claim 11, the presence or the digital computer, because we thought that was the practical way to do it. Remember, we didn't know that Flook was going to be decided when we wrote these claims. We weren't aware of what the Court was going to do in that kind of thing, and the claims, I hope, are somewhat artfully drawn from the sense of patent law, because that's supposed to be my profession. But they're not artfully drawn to get around any particular decision anywhere.

QUESTION: No, and you make the assumption that Flook mandates, namely, that the mathematical formula is one to be assumed to be well-known, and here, in fact, it was.

MR. WICKERSHAM: Well, as far as I'm concerned, of course, we couldn't assume anything else here. It definitely was old anyway, whether we would assume it or not.

With us, the point was to put these process elements together. Process elements are somewhat different from machine elements, but the operation is basically the same. If we had the computer and didn't monitor the temperature the way we did or didn't use it for frequent recalculation, then we wouldn't have the same thing.

I believe I should touch a little on the point that the Solicitor General brought up, that of some prior art and things. As I understand it, the Section 101 issue is to be

decided before one goes into the prior art and there's a sentence in the case of Parker v. Flook that says so, as to the art that he is using, the Gates and Davis patents.

I should point out that the examiner had considered them and withdrawn his Section 103 objection over them, and that should indicate that at least to one experienced man it was not an obvious thing to do.

Part of the difference in those resided in the product, of course. In both those patents they're talking about making rubber tires, which are rather huge things and what we would not call, in our particular field, a precision-molded product. You can see on the rubber tires when you get a new one all the flash, the extra material that's there. You can see that although it has a certain definition and such, it's still relatively a crude product, at least compared to what we have.

We could not stick a probe through our material without completely ruining it. We couldn't even have capacitance measuring devices going across it starting from the mold without a great deal of difficulty in trying to get a product out of it that would be a satisfactory product. It would be too rough. It would have these bumps on it.

As far as I'm concerned, both the majority and the minority in the Flook case seem to have agreed that Section 101 does not call for considering Section 102 or Section 103.

That is the exact conclusion to which the Court of Customs and Patent Appeals came and why the Court of Customs and Patent Appeals didn't disturb, so-called, the findings, so-called, of the Patent Office Board of Appeals.

QUESTION: Suppose the claims of a patent clearly encompass some unpatentable subject matter and it's completely agreed that that unpatentable subject matter is a discovery in the sense that it's new and novel, but didn't Flook suggest or hold that if that's the only thing new or novel in the claims, that there is no patentable issue?

MR. WICKERSHAM: I think it suggested or held that; I do.

QUESTION: Well, then, mustn't you, if you find an unpatentable element in the claims, mustn't you inquire whether there's something else that would entitle you to a patent in the claims?

MR. WICKERSHAM: I think that basically, of course, you're right. I'm not going to argue with you.

QUESTION: And in that sense -- well, in that sense, then, you do inquire into these other elements?

MR. WICKERSHAM: In that sense and that sense alone, yes.

QUESTION: Well, all right, but don't say then that those elements are wholly foreign under Flook.

MR. WICKERSHAM: Well, the Section 102 and 103

considerations go much deeper than that, I believe.

QUESTION: Well, it may be, but they --

MR. WICKERSHAM: Well, Congress at any rate thought they were separate and said that they'd split the statute in two. The Section 101 covered basically the classes of things which could be patented, Section 102 covered the novelty, and Section 103 the question of obviousness. And I think basically that's what's intended.

I would say -- you asked a question about types of inventions that do not come under Section 101. There are many, many such. Methods of doing business, for example; sales programs; the ideas for books, or plots. You can enumerate them forever. There's many things that don't come under Section 101. Basically, Section 101, I believe, was intended to protect inventors who came up with something of a physical embodiment, some way or other; at least a physical embodiment.

Now, numbers are not really physically embodied even when we write them out, as digits, in the Arabic system. That's simply a symbol. The number itself is still a concept. And I don't think it was ever intended by any of the writers of the Constitution or the legislators in Congress, at any time, that people be able to patent their concepts.

But when it gets down to having something that can be reduced to a physical status, whether it's a composition of matter as it was in Chakrabarty, under one interpretation

anyway; process is under another, whether it's a machine or whether it's some sort of article that you can sell, any of those things, I think, certainly justify a patent as far as Section 101 is concerned.

As far as Sections 102 and 103 are concerned, examination is pretty strict at the Patent Office. The product that we have here, for example, this little thing here, has at least two patents that cover it as a product, because there were two inventive concepts that were then physically embodied. That doesn't count the process. We make other things that aren't patentable, or patented by our process.

I hope that we've arrived at most of the question because I certainly want to take care of any questions that you have while I'm here.

QUESTION: Do you think the issues in these two cases are pretty much the same, or different?

MR. WICKERSHAM: These two cases?

QUESTION: Yes.

MR. WICKERSHAM: I would say they're quite different. I'm not trying to get anything on a machine, they're not trying to get anything on a process. They impressed me that the only thing they really have in common is the use of Section 101 and the contention by the Commissioner that they both involve computer programs.

By the way, here's a computer program, some 300 pages,

which is used in this process. We didn't disclose it in the patent application because it wasn't necessary, but that is a printout of the program. The actual program are the instructions, of course, that go into the machines in the computer. We're not trying to patent that. We don't want to patent it, even if we could, I couldn't write a claim 300 pages long to cover it.

QUESTION: You want to patent the idea of using that program or one like it to figure out how long to cook the rubber?

MR. WICKERSHAM: Well, any computer is useless without some program, once you get -- that is, except as an object to sell or something of that nature. And so it's going to be programmed some way or other. But the specific programming will depend on the rubber that you're going to use, the kind of mold you're using, its shape, and all that. Now, we have this, because this controls, in effect, the whole plant. We can use one computer to control 60 machines and do it, in the same plant. So that we are able to get a lot of mileage out of the computer, but we don't make computers and we don't usually come up with computer programs. We usually simply make oil seals, shaft seals, rings of that kind, and then other products that aren't related at all to this invention.

What we're interested in protecting is that. We're interested in being able to keep our competitors from using

it without a license from us. We're not interest at all in protecting the program. The flow sheets that the Government contends are the program are -- well, they certainly tell a lot about the program, they enable someone to use it. But that's going to be printed in the patent; we don't care if it's printed in the newspapers. We don't care if it's distributed to everybody in our business. They can put it into their computers if they want to as long as they don't make these rubber products.

The case, to me, is an important one from the standpoint of patent law because up until a short time ago when the Solicitor made his statement toward the end of his argument, I believed that they were trying to say that the use of a computer in any way, or program, made the whole process unpatentable no matter what it was. I found out he doesn't make that contention and I'm very much relieved by it.

QUESTION: But he does apparently claim that no computer program is patentable.

MR. WICKERSHAM: He does; yes. Now, as far as I'm concerned, I've never given it much thought whether a computer program is patentable because computer programs are so long, so unwieldy, that I just can't see anybody applying for a patent on it. That may not be the thoughts of people in the software industry but I don't have any clients in that field myself.

QUESTION: What about a copyright?

MR. WICKERSHAM: Well, that's another interesting idea. Of course, that wouldn't protect us at all. We're trying to protect our rubber molding product and you can't copyright that kind of thing. That's up to Congress right now and I hope they can work out something that will be for the best of the country, whatever it is.

Are there any further questions?

MR. CHIEF JUSTICE BURGER: I think not.

MR. WICKERSHAM: I'm really basically finished.

MR. CHIEF JUSTICE BURGER: Very well.

MR. WICKERSHAM: I'll be happy to continue if you want, a little at a time. Thank you, then.

MR. CHIEF JUSTICE BURGER: No requirements. Do you have something further, Mr. Wallace?

MR. WALLACE: Please, Mr. Chief Justice.

MR. CHIEF JUSTICE BURGER: Six minutes remaining.

MR. WALLACE: I'll try to be brief.

ORAL ARGUMENT OF LAWRENCE G. WALLACE

ON BEHALF OF THE PETITIONER -- REBUTTAL

MR. WALLACE: We recognize that the process described in detail in respondents' brief and described during the oral argument is a useful technological process, as indeed was the process of updating the alarm limits in Flook for the purpose of producing certain petrochemicals and other use in the

hydrocarbon industry, not just to use to get a number, after all. But it was being applied to the manufacturing processes of catalytic conversion.

And, indeed, there is a patent on basically the same process that has been described in so much detail, that is the Gould and Davis patent which was cited by the examiner as the prior art. And in comparing this application with the prior art, the determination was made that what was disclosed here was a computer program and that everything else in the application was conventional, was known in the prior art, was the familiar process.

QUESTION: Well, do you think the Gould and Davis patent was a good patent?

MR. WALLACE: We have no reason to think otherwise. It was issued by the Patent Office. It has not been challenged in infringement litigation. We think processes of this kind can be patentable. It probably was a good patent.

QUESTION: Well, whether it was a good patent or not, it was known.

MR. WALLACE: It was known; that's right. Whether it was prior art doesn't depend on whether it was a valid patent. It was prior art.

Now, the fact of the matter is, regardless of whatever factual contentions are made here about whether all of the novelty inhered in the computer program, we've tried to

answer those in our brief. That was the finding of the Board, not disturbed by the Court of Customs and Patent Appeals. The fact of the matter is, computer programs can be novel and not obvious. And the question that the Patent Office has been faced with, the question that was before this Court in Benson and again in Flook, is whether there's any limitation in the patent law on awarding the patents when you have a computer program or other sequence of mathematical or scientific steps that is novel and not obvious, and there's an attempt being made to exclude others from using it, perhaps for particular end uses.

And I want to remind the Court that in the Benson case the Court quoted from the President's Commission on the patent system, which said that the programs themselves were not statutory subject matter, and, then, the indirect attempts to obtain patents by drafting claims as a process or a machine or components thereof, programmed in a given manner rather than as a program itself, should not be permitted.

And the reasons why that Commission said they should not be permitted were that reliable searches would not be feasible or economic because of the tremendous volume of prior art being generated. Without this search the patenting of programs would be tantamount to mere registration, and the presumption of validity would be all but nonexistent. And the creation of programs has undergone substantial and satisfactory

growth in the absence of patent protection and in the meantime copyright protection for programs is available. That is the legislative question that this Court has twice said it is up to Congress to address, whether in whatever form and effort to get patents on processes or machines where the only element of novelty is in the computer program should be permissible, as long as those programs are not obvious or novel.

QUESTION: May I ask you a question that's really unrelated to this legislative problem? Supposing the Gould patent in this case had never issued but was just applied for, and it had whatever claims it has in it now, 13 or 14 claims. And there was a claim 15 that said that everything in the preceding claims except that all the mathematical calculations shall be performed by means of a digital computer, would the entire patent application be patentable subject matter, and or if all but the last claim would, would the last claim not be patentable subject matter because of the reference I included in it?

MR. WALLACE: Well, the mere suggestion of the use of a digital computer would not make the application unpatentable. Actually they did suggest the use of a digital computer.

QUESTION: What's puzzling about this case is, you rely on the earlier patent application to demonstrate that there is no novelty in much of this process, but they argue, they come back and say, yes but that does demonstrate that the

process is patentable subject matter, because a patent issued on it. And the only thing that's happened is, they've added something in here. Does that destroy what would otherwise be patentable subject matter simply because they say you can do a lot of the operations in the process by having the mathematics done by a computer instead of a genius?

MR. WALLACE: This is true of a process application or a machine application. The prior art shows that patents do issue for processes and for machines, and if Flook is to mean anything, it must be more than a guide to the drafting of these claims, so that there's always a claim beyond the novel formula itself in the application. It must mean that the application is analyzed to see whether the only novelty inheres in the scientific principle or formula. And that is our point, in bringing these cases to the Court.

QUESTION: And what you'd say to my hypothetical is that last claim would then be rejected because the only thing that was additional in that is the use of the computer, which would not make it patentable?

MR. WALLACE: It could be rejected just as the one claim in Morse was rejected, that the Court referred to in Flook.

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

(Whereupon, at 2:21 o'clock p.m., the case in the above-entitled matter was submitted.)

CERTIFICATE

North American Reporting hereby certifies that the attached pages represent an accurate transcript of electronic sound recording of the oral argument before the Supreme Court of the United States in the matter of:

No. 79-1112

Sidney A. Diamond, Commissioner of Patents and Trademarks,

v

James R. Diehr, II and Theodore A. Lutton

and that these pages constitute the original transcript of the proceedings for the records of the Court.

BY: William J. Wilson