

1957
May 13
June 7

BETWEEN:
CIBA LIMITED APPELLANT;

AND

THE COMMISSIONER OF PATENTS ..RESPONDENT.

Patents—Appeal from decision of Commissioner of Patents—Patent Act, R.S.C. 1952, c. 203, ss. 2(d), 44—Difference between process and method—Patentability of process of applying known method of reaction to known reactants resulting in discovery of unobvious utility of substances thereby produced.

The applicants, the assignors of the appellant, had filed an application for a patent containing three claims for certain chemical compounds and three claims for the process of making them. It was agreed that, although the reactants referred to in the product claims were known chemical compounds, the applicants were the first persons to react them and to discover their unobvious useful properties as disinfectants and preservatives. The compounds were thus new and useful and the discovery of their unobvious useful properties was an inventive act. The Commissioner allowed the claims for them but refused to allow the claims for the process by which the substances were produced on the ground that the process was not new. The appellant appealed from his decision. It was agreed that the reaction between reactants of the general type specified in the product claims, which were known chemical compounds, was a known and classical type of reaction, but it had never before been applied to the said reactants. It was also agreed that if a person skilled in the art had been asked to produce the products defined in the product claims he would have known that the process defined in the process claims could have been used for the purpose.

Held: That there is a difference between "process" and "method" or "procedure", that there cannot be a process by itself, but that it must consist of two elements, namely a method or procedure and the material or materials to which it is applied.

2. That when a process consists in the application of a known method to known materials but it has not previously been applied to them and the use of the process results in the production of a new substance then the process by which such new substance is produced is a new process.
3. That, since no one, prior to the invention, had applied the known classical method of reaction to the particular reactants specified in the product claims but that when the inventors did so they produced the new products defined in them, the process by which they did so was new.
4. That when a process consists in the application of a known method to known materials but it has not previously been applied to them and the use of the process results in the production of a substance that is not only new but also valuable for its unobvious useful qualities the process by which such substance is produced is patentable.
5. That the applicants made an inventive step when they applied the known classical method of reaction to the particular reactants specified

in the product claims and discovered that by doing so they could produce the new and useful disinfectants and preservatives and that when they discovered their unobvious utility they also discovered the unobvious utility of the process by which they had produced them.

6. That the fact that the discovery by the applicants of the unobvious utility of their process may have flowed from their discovery of the unobvious utility of the substances produced by it does not deprive their concept of reacting the particular reactants and thus producing the new and useful substances of its inventive character.
7. That the process claims are patentable and the appeal from the Commissioner's decision is allowed.

APPEAL from decision of the Commissioner of Patents.

The appeal was heard before the President of the Court at Ottawa.

Christopher Robinson, Q.C., and *R. S. Smart* for appellant.

K. E. Eaton and *R. W. McKimm* for respondent.

The facts and questions of law raised are stated in the reasons for judgment.

THE PRESIDENT now (June 7, 1957) delivered the following judgment:

This is an appeal pursuant to section 44 of the *Patent Act*, R.S.C. 1952, Chapter 203, from the decision of the Commissioner of Patents, rendered on January 21, 1955, refusing to allow the process claims contained in the application for Letters Patent of Max Hartman and Werner Bosshard, of Riehen in Switzerland, the assignors of the appellant, filed on October 16, 1945, under serial number 533,000.

The application was for an invention entitled "Phenoxyethyl-ammonium compounds and process of making same, also their use as disinfecting and preserving preparations", containing six claims reading as follows:

1. Process for the manufacture of new phenoxyethyl-ammonium compounds, comprising reacting N-phenoxyethyl-dimethyl-amine with a reactive ester of a hydrocarbon alcohol containing at least 8 carbon atoms.
2. Process as claimed in claim 1, comprising reacting N-phenoxyethyl-dimethyl-amine with a dodecyl halide.
3. Process as claimed in claim 2, comprising reacting N-phenoxyethyl-dimethyl-amine with dodecyl-bromide.

1957
 CIBA
 LIMITED
 v.
 COMMISSIONER OF
 PATENTS
 ———
 Thorson P.
 ———

4. A quaternary compound of N-phenoxyethyl-dimethyl-amine which has a hydrocarbon radical with at least 8 carbon atoms linked to the quaternary nitrogen atom.
5. A β -phenoxyethyl-dimethyl-dodecyl-ammonium-salt.
6. β -Phenoxyethyl-dimethyl-dodecyl-ammonium-bromide.

The Commissioner allowed the product claims 4, 5 and 6 but refused to allow the process claims 1, 2 and 3. It is from this refusal that the appeal is brought.

As I read the Commissioner's decision his basic objection to the process claims was that the process defined in them was not new. He agreed with the Examiner's view that "the process claims are not rendered patentably new merely because they may be employed to produce new and patentable products", and then proceeded to say:

In my opinion there is no room for argument at all. A standard classical reaction is used to react two compounds, each having a well known and defined radical capable of reacting in a standard manner with the other radical and there is no problem or danger of any side reaction.

In this case the novel conception was the new quaternary compounds; once the new compounds were envisaged, there was no problem or difficulty in the production of the compounds. The only inventive step, if any in this case, is the discovery of certain properties in certain phenoxyalkyl-ammonium salts and this fact, in itself, is obviously insufficient to render patentable an old classical method of preparing this type of substance.

Counsel for the parties reached an agreement as to facts in the following terms:

The parties agree that this appeal should be heard on the basis of the documents already filed and the following facts:

1. The products claimed in claims 4-6 of the application are patentable since they are useful as disinfectants and preservatives and the persons named as inventors in the application were the first to produce them or suggest their production and to discover their utility which was not previously obvious.
2. The process claimed in claims 1-3 of the application is one for the production of the products claimed in claims 4-6.
3. As of the date when the process claimed in claims 1-3 of the application was first carried out by the persons named as inventors in the application, the reaction between reactants of the general type specified in claims 1-3 of the application was a known and classical type of general reaction, though it had never been applied to the particular reactants specified in these claims which reactants were, however, known chemical compounds.
4. Had a person skilled in the art desired, at the date referred to in paragraph 3, to produce the products claimed in claims 4-6 of the application he would have known that the process claimed in claims 1-3 could be utilized for that purpose.

It is conceded that the products defined in claims 4, 5 and 6 are patentable. Although the reactants referred to in them were known chemical compounds the applicants were the first persons to react them and to discover their unobvious useful properties as disinfectants and preservatives. The products were thus new and useful and the discovery of their unobvious useful properties was an inventive act. Consequently they had, in the terms of the text books and decisions, all the necessary attributes of patentability, namely, novelty, utility and lack of obviousness.

The sole issue is whether the process defined in claims 1, 2 and 3 is patentable. It is essential to its patentability that it should be an invention within the meaning of section 2(d) of the *Patent Act* which provides:

2. In this Act, and in any rule, regulation or order made under it,
(d) "invention" means any new and useful art, process, machine, manufacture or composition of matter, or any new and useful improvement in any art, process, machine, manufacture or composition of matter;

It is agreed that if a person skilled in the art had been asked to produce the products defined in the product claims he would have known that the process defined in the process claims could have been used for the purpose. But it is important to keep in mind that he would have had to be told the composition of the products defined in the product claims. Moreover, while the method of reacting compounds of the general type of the reactants specified in the products claims was known, it had never, prior to the invention, been applied to the particular reactants specified in them and, prior to the invention, it would not have occurred to anyone to apply it.

The issue whether the process defined in claims 1, 2 and 3 is patentable raises an interesting question, namely, whether a patent should issue for a process by which a patentable product is produced by a process consisting of the application of a known method to known materials when it has never previously been applied to them and the usefulness of the resulting product was not obvious and had not been discovered. I am informed that there are many applications pending in the Patent Office in which a question similar to the one here in issue has arisen.

1957
CIBA
LIMITED
v.
COMMISSIONER OF
PATENTS
THORSON P.

1957
 CIBA
 LIMITED
 v.
 COMMISSIONER OF
 PATENTS
 ———
 Thorson P.
 ———

The question is, therefore, important as well as interesting. It is also novel in Canada for it has not arisen for consideration in any previous Canadian case. The decision in *Hoffman-La Roche Limited v. Commissioner of Patents*¹ has, in my opinion, no bearing on it. But the question was carefully considered in a recent English case, *In re May & Baker Limited and Ciba Limited*². There the Court had to consider a petition to revoke a patent granted to May & Baker Limited and Ciba Limited jointly and a motion by them for leave to amend the patent, the petition and the motion being heard together. The case involved a good many issues that have no bearing on the problem under review and I shall confine my discussion of it to those that are relevant.

The invention was described in the specification of the patent under attack as "Manufacture of new benzenesulphonamido-derivatives" and was said to consist in a manufacture of new para-amino-benzene-sulphonamido-thiazoles. It was stated that these find application in therapeutics and have chemotherapeutic activity in streptococci infections and similar illnesses and two specific examples of the products, known as sulphathiazole and sulphamethylthiazole, were given with figures showing their high remedial effect and low toxicity. There were 5 claims in the patent, 4 being process claims and 1 a claim for the process produced products. By the proposed amendments the respondents sought to restrict the patent to claim only the two products specifically mentioned when prepared or produced in the manner specified.

The petition for revocation was based on several grounds but I shall refer only to the attacks based on the allegations of lack of novelty and lack of subject matter. The petitioners also opposed the motion for leave to amend on the ground, *inter alia*, that the patent as amended would claim an invention substantially different from that claimed in the unamended patent. The case came on for trial before Jenkins J. in the Chancery Division of the High Court. He held that the attack on the patent for lack of novelty failed but the patent was bad for lack of subject matter in that it extended to substances that were not useful and decided that it must be revoked. He also dismissed the motion for

¹ [1954] Ex. C.R. 52; [1955] S.C.R. 414.

² (1948) 65 R.P.C. 255; (1949) 66 R.P.C. 8; (1950) 67 R.P.C. 23.

leave to amend on the ground, *inter alia*, that if the patent was amended as proposed it would claim an invention substantially different from that claimed in the original patent. The case then went to the Court of Appeal and by leave to the House of Lords. In the Court of Appeal and in the House of Lords the respondents did not attempt to defend their unamended patent and the petition for its revocation was not discussed before them, the arguments being confined to the admissibility of the proposed amendments. The Court of Appeal agreed unanimously that they were not admissible and the House of Lords dismissed the appeal to it by a majority vote of three to two.

I have already referred to the fact that in dealing with the petition to revoke the patent Jenkins J. held that the attack on the patent for want of novelty failed. After referring to certain prior publications and the fact that certain methods referred to in the specification in the patent were known, he said, at page 279:

The fact that the methods described in the specification were in themselves known methods being admitted on the face of the specification itself, it is obvious that the Respondents could only claim novelty for them as part of the entire process consisting of their application to the particular classes of materials described in the specification so as to produce the new substances claimed. If the entire process was in fact new, in the sense that no one had done or projected the doing of it before, and that the new substances produced had never been made or projected before, then, assuming subject-matter, as it is right to do in considering novelty, I think the objection based on want of novelty must fail.

It is interesting to note that in considering novelty Jenkins J. assumed subject matter. It is always important to remember that these two attributes of patentability are not the same. Jenkins J. realized the difference between them as clearly as it was put by Lindley L.J. in *Gadd and Mason v. The Mayor of Manchester*¹ where he said:

In considering subject-matter, novelty is assumed; the question is whether, assuming the invention to be new it is one for which a patent can be granted. In considering novelty, the invention is assumed to be one for which a patent can be granted if new, and the question is whether on that assumption it is new. Has it been disclosed before? If there is an earlier specification for the very same thing, the second invention is not new; but if the two things are different, the nature and extent of the difference have to be considered.

It is also clear that there is a difference between "process" on the one hand and "method" or "procedure" on the other.

¹ (1892) 9 R.P.C. 516 at 525.

1957
CIBA
LIMITED
v.
COMMISSIONER OF
PATENTS

There cannot be a "process" by itself. It must of necessity consist of two elements, namely, a method or a procedure and the material or materials to which it is applied. A process implies the application of a method to a material or materials.

Thorson P.

I must say that I find the reasoning in the statement of Jenkins J. convincing and I adopt it. The effect, to use terms applicable in Canada, is that when a process consists in the application of a known method to known materials but it has not previously been applied to them and the use of the process results in the production of a new substance then the process by which such new substance is produced is a new process. In my opinion, this principle is applicable to the facts of the case under review. As I have already stated, no one, prior to the invention, had applied the known classical method of reaction to the particular reactants specified in claims 4, 5 and 6, such reactants being themselves known, but when the inventors did so they produced the new products defined in the claims. The process by which they did so was, consequently, new. It follows that I must find that in so far as the Commissioner's refusal to allow the process claims was based on his opinion that the process defined in them was old and unpatentable on that account it was erroneous. In my judgment, the process defined in claims 1, 2 and 3 was new.

But that finding is not sufficient to warrant the allowance of the appeal from the Commissioner's decision. If the process claims are to stand it must be shown that the process defined by them possesses, in addition to novelty, the other necessary attributes of patentability and here I again refer to the *May & Baker Limited* case (*supra*). There Jenkins J., after finding that the attack on the patent for lack of novelty failed, laid down certain principles relating to subject matter. At page 281, he said:

I should, I think, endeavour to state the principles on which, and limits within which, an invention consisting of the production of new substances by known methods from known materials can be supported from the point of view of subject-matter. I understand them to be these:

(i) An invention consisting of the production of new substances from known materials by known methods cannot be held to possess subject-matter merely on the ground that the substances produced are new, for the substances produced may serve no useful purpose, in which case the inventor will have contributed nothing to the common stock of useful knowledge (the methods and materials employed being already known) or of useful materials (the substances produced being, *ex hypothesi*, unless)

(ii) Such an invention *may*, however, be held to possess subject-matter provided the substances produced are not only new but useful, though this is subject to the qualification that the substances produced must be truly new, as opposed to being merely additional members of a known series (such as the homologues) and that their useful qualities must be the inventor's own discovery as opposed to mere verification by him of previous predictions.

There was also a third principle but it related to selection patents and need not be cited.

Applying these principles to the facts before him Jenkins J. concluded that the patent was bad for lack of subject-matter in that the products described and claimed were, as a class, not useful. The proved utility of the two products referred to in the specification as special examples, namely, sulphathiazole and sulphamethylthiazole, was not sufficient to provide subject matter for the invention as a whole. Consequently, since the patent extended to products that were not useful it was bad for lack of subject matter and he ordered its revocation. There were other objections to the patent that need not here be referred to. Since Jenkins J. found that there was no utility for the whole range of products covered by the specification there was no need to consider whether there was obviousness in the invention or not.

It is apparent from this statement of principles that the attack on the patent for lack of subject matter would have failed if the substances produced by the process claimed had been useful and their utility was the inventor's own discovery and was not obvious. And it is to be noted that Jenkins J. was considering the validity of 5 claims of which 4 were process claims.

And there can, I think, be no doubt that if the applicants for the patent had confined themselves in the first place to the manufacture of the two products specially mentioned by them, namely, sulphathiazole and sulphamethylthiazole, their claim would have met the tests of patentability set out in the statement of principles and the attack for lack of subject matter on the ground that the claims extended to products that were not useful would have failed.

After deciding that the patent must be revoked, Jenkins J. considered the motion for leave to amend and dismissed it on the ground, *inter alia*, that the amended patent would claim an invention substantially different from that claimed by the unamended patent and that this was not permissible

1957
 CIBA
 LIMITED
 v.
 COMMISSIONER OF
 PATENTS
 —
 Thorson P.
 —

1957
 CTBA
 LIMITED
 v.
 COMMISSIONER OF
 PATENTS
 ———
 Thorson P.
 ———

under section 22 of the English Act. In considering what the invention covered by the patent was he said, at page 295:

Now it seems to me that in considering this question one must begin by determining what is the character of the inventive step to which the invention as claimed by the unamended specification would, if valid, have owed its validity as an invention. If I am right in the conclusions stated earlier in this judgment with regard to subject-matter, there is no inventive step, no element of discovery, merely in making new substances by known methods out of known materials.

What is indispensably necessary in order to elevate a process of this description from a mere laboratory exercise to the status of a patentable invention is the presence of some previously undiscovered useful quality, for example some remarkable value as drugs, then although the methods are known and the materials are known yet the application of those methods to those materials to produce those new substances may amount to a true invention, because of the discovery that those particular known materials when combined by those methods not merely produce those new substances but produce, in the shape of these new substances, drugs of remarkable value.

I think it necessarily follows that the identity of the materials chosen (by luck or good management) by the supposed inventor for the production of his new substances is of the essence of his invention. He must, so to speak, be in a position to repel critics by saying: "You tell me that there is nothing in combining known substances A and B to produce my new substance C, because any chemist could have worked the combination from the books and would have known as a matter of chemical definition that C would be the result. But my great secret, my discovery, is that these particular known substances A and B when combined do not merely produce a new substance answering the chemical description C (which according to accepted chemical theory was a foregone conclusion) but produce in the shape of C a remarkably valuable drug."

A striking tribute was paid to the judgment of Jenkins J. both in the Court of Appeal and in the House of Lords. In the Court of Appeal Lord Greene M.R. stated that he agreed with it and might well have contented himself with adopting it as his own¹. And in the House of Lords, Lord Simmonds, who delivered the leading majority judgment, said²:

I have gratefully borrowed from the judgments of Jenkins, J. and the Master of the Rolls, from no word of which do I see any reason to dissent.

And Lord Morton of Henryton, one of the dissenting judges, said at page 40:

I am in agreement with the admirable judgment of Jenkins, J. unanimously upheld by the Court of Appeal, on every point save two.

neither of the two points of exception referred to by him having any bearing on the statements I have cited.

¹ (1949) 66 R.P.C. 11 at 18.

² (1950) 67 R.P.C. 23 at 34.

It was urged on behalf of the Commissioner that the statements of Jenkins J. were *obiter*. I do not agree but even if they were I find his reasons convincing and adopt them as applicable to the present case.

I have already held that although a process consists in the application of a known method to known materials it is nevertheless a new process if the method has not previously been applied to the particular materials and the use of the process results in the production of a new substance, but I agree with Jenkins J. that there is no inventive step involved in merely making a new substance by such a process, even if it is new, if the substance is not useful. The mere novelty of the process is not enough to make it patentable. What is "indispensably necessary" in order to elevate it to the status of a patentable invention is the presence of some previously undiscovered useful quality in the product produced by it. It is, in my opinion, clear that when Jenkins J. made the statement which I have cited from page 295 of the report of the case he was thinking of the invention of a process. His remarks are plainly referable to such an invention. And it is clear that he considered that the presence of a previously undiscovered useful quality in the product produced by the process even although it consisted in the application of known methods to known materials might amount to a true invention because of the discovery that when the particular known materials were combined by the known methods they produced substances that were not only new but also useful.

Thus, Jenkins J. held, in effect, that the discovery of the unobvious and previously unknown utility of the process, namely, that its use would produce a new and useful substance would make the process an invention. There is further support for this view of his holding in the concluding sentence of the cited statement:

But my great secret, my discovery, is that these particular known substances A and B when combined do not merely produce a new substance answering the chemical description C (which according to accepted chemical theory was a foregone conclusion) but produce in the shape of C a remarkably valuable drug.

This remark, plainly referable to a process, shows that the invention that Jenkins J. contemplated lay in the discovery of the utility of combining the known materials for the production of a new and useful substance.

1957
 CIBA
 LIMITED
 v.
 COMMISSIONER OF
 PATENTS
 Thorson P.

1957
CIBA
LIMITED
v.
COMMISSIONER OF
PATENTS
Thorson P.

For reasons similar to those given by Jenkins J. I express the opinion that when a process consists in the application of a known method to known materials but it has not previously been applied to them and the use of the process results in the production of a substance that is not only new but also valuable for its unobvious useful qualities the process by which such substance is produced is patentable.

In my judgment, the process defined in claims 1, 2 and 3 of the patent under discussion is clearly within the ambit of the principle thus stated. It has all the necessary attributes of patentability. I have earlier found that it was new, for the applicants were the first persons to think of applying the known "classical" method of reaction to the particular reactants specified in the product claims and to produce the new disinfectants and preservatives defined in them. It had never previously occurred to any one to do what they did. And there cannot be any doubt that the process was useful. Without it the new substances could not have been produced. The process was essential to their production. And it is clear that the utility of the substances was not obvious and was not known until the applicants discovered it.

It is conceded that the discovery of the unobvious utility of the new disinfectants and preservatives produced by reacting the particular reactants specified in the product claims was inventive and that this coupled with the novelty of the substances and their utility made them patentable. In my opinion, it is just as proper to say that the applicants made an inventive step when they applied the known "classical" method of reaction to the particular reactants specified in the product claims and discovered that by so doing they could produce the new and useful disinfectants and preservatives.

Thus, the statement of the Commissioner that the only inventive step taken by the applicants was the discovery of certain properties in certain phenoxyalkyl-ammonium salts does not warrant his refusal to allow their claims for the process by which they were produced for there was also the discovery by the applicants that if they reacted the particular reactants specified in the product claims they could produce the salts referred to with their useful qualities.

Indeed, it would be fair to say that when the applicants discovered the unobvious utility of the new preservatives and disinfectants which they had produced by their new

process they also discovered the unobvious utility of the process by which they had produced them.

The fact that their discovery of the utility of their process may have flowed from their discovery of the utility of the substances produced by it does not deprive their concept of reacting the particular reactants and thus producing the new and useful substances of its inventive character.

There was thus inventiveness not only in the discovery of the unobvious useful qualities of the new substances but also in the discovery of the unobvious utility of the new process by which they were produced with the result that both the substances defined in the product claims and the process defined in the process claims are patentable.

For the reasons given I must find that the Commissioner was in error in refusing to allow the process claims 1, 2 and 3 and that the appeal from his decision is allowed. But pursuant to section 25 of the Act the allowance of the appeal must be without costs.

Judgment accordingly.

N.B. The judgment herein was affirmed by the Supreme Court of Canada [1959] S.C.R. 378.

1957
 CIBA
 LIMITED
 v.
 COMMISSIONER OF
 PATENTS
 ———
 THORSON P.
 ———