17/3/1950

McAuliffe

and

Kraft & Ors

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Reasons for Judgment

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Kitto J. } 3 Dissenting
Clark J. }
Isaacs J.
Rich J.
Dixon J.

McAULTY V. KRAFT and others

JUDGMENT KNOX C.J. , STARKE J.

This is an appeal from the judgment of Henchman J., of the Supreme Court of Queensland, restraining the defendant appellant from manufacturing cheese of the cheddar genus in accordance with the complete Specification of Letters Patent for the Commonwealth of Australia No. 1620 of 1926, and granting other ancillary relief. The Letters Patent were granted for an invention for the "process of sterilizing cheese "and an improved product produced by such process", fully described and ascertained in the complete Specification of the invention. According to the Specification, the invention consists in: (a) the process of rendering cheese of the cheddar group permanently keeping: the cheese is heated and melted and actively stirred while melted, the temperature is raised to such a degree as to effect compete sterilization , and the product enclosed in protective container under sterilized conditions; and (b) the improved product produced by such process. The invention is based on the discovery that cheese of the cheddar genus may be prevented from disintegrating under the action of heat ( as high a temperature as 175° F., or even higher, by subjecting the mass to proper agitation, and stirring continuously, or substantially continuously, throughout the period beginning with the application of heat to the cheese and continuing until it has reached the necessary temperature, and been maintained at that temperature long enough to ensure thorough sterilisation. A temperature of 175 F., maintained for a period of ten or fifteen minutes, is stated to be ample to ensure thorough sterilization

The method of carrying out the process is substantially as follows. Cheese which has been made and cured is cut up into small pieces and placed in a suitable heating device - e.g. a steam jacketed kettle - wherein it is subjected to the desired temperature without scorching. Steam, hot water, or other source of heat is then applied to the kettle or other receptacle, and the temperature of its contents gradually raised, until it reaches approximately 175° F., which temperature is held for a period sufficient to destroy the life of all bacteria - usually for about fifteen minutes. The kettle or other receptacle is equipped with mechanical stirrers (though stirring may be performed manually) and, while the cheese is being melted, and while it is held at sterilizing temperature, it is actively stirred or agitated. This treatment results in maintaining the mixture in a homogeneous condition, and prevents it from losing its true cheese character. After complete sterilization is assured, the liquid cheese is run off into suitable containers, and these are, ordinarily, hermetically sealed under sterile conditions.

The inventor thus states his claims:-

1. The improved process of rendering cheese of the cheddar group permanently keeping, which consists in heating and melting the cheese, actively stirring it while melted, and, while thus maintained in homogeneous condition, raising its temperature to such a degree as to effect complete sterilization, and then enclosing it in protective containers under sterilized conditions.

2. The improved process of rendering cheese of the cheddar genus permanently keeping, which consists in heating it to approximately 175° F., retaining it at such raised temperature for a substantial period, agitating or stirring the cheese during the treatment with heat, and finally placing it, while sterile, in suitable, sterilized, hermetically sealed containers.

3. As a new article of manufacture, completely sterilized cheese of the cheddar genus.

4. As a new article of manufacture, a hermetically sealed completely sterilized package of cheese of the cheddar genus.

5. As a new article of manufacture, a hermetically sealed completely sterilized package of non-liquid homogeneous cheese of the cheddar genus.

This ~~action~~ appeal depends upon the proper construction of the Specification and Claim, which are addressed to those skilled in the art to which the Patent relates, such as cheese manufacturers. As is usual in this class of case, a great mass of evidence was led as to the state of the art, and of general knowledge on the subject, prior to the grant of the Letters Patent. The main points of this evidence may be thus summarised:-

(1) Cheese is of two varieties, hard and soft, and cheese of the cheddar genus belongs to the former variety.

(2) Cheese is the casein of milk, reduced by coagulation to a solid form. The casein fat, and part of the ash of the milk, are ~~are~~ retained in the cheese, whilst the sugar albumen and the remainder of the ash pass off in the whey.

(3) For the ripening of cheese, the action of certain micro-organisms or

bacteria is necessary, and these are developed in the milk, or are introduced by the cheesemaker. The flavour of cheese is dependent upon the activities of these micro-organisms or bacteria. But the activities of these and other micro-organisms or bacteria render cheese a perishable commodity, and its life is short under the most favourable conditions of temperature .

(4) All micro-organisms or bacteria are not in their action harmful to human beings, and some are, as already noticed, actually useful .

(5) Micro-organisms or bacteria will not survive, with some few exceptions, a temperature of from 120° to 150° F.

The melting point of cheddar cheese is somewhere about 100° F., and at that temperature the fat would separate itself from the casein, and the cheese would disintegrate. Consequently, the problem was how to use the temperatures that would destroy the micro-organisms and bacteria, and yet preserve the cheese and make it less perishable.

According to the inventor, it was understood that various soft cheeses, such as Camembert, Limburger etc., which in the advanced stages of curing become liquid or semi-liquid, had been made permanently keeping by sterilizing with heat and sealing hermetically under sterilized conditions. And this statement is confirmed by the evidence of A.R.T. Brown. The inventor discovered that by melting cheese of the cheddar genus and actively stirring and agitating it whilst melted, he could use temperatures beyond the melting point of such cheese, and proceed to

temperatures that would ~~not~~ destroy micro-organisms and bacteria without disintegrating the cheese, or, if they did disintegrate it, the cheese would reintegrate and be preserved as cheese without its taste being substantially impaired. Therefore his direction is to raise the temperature so as to completely sterilize or "thoroughly sterilize" the cheese; and to use for this purpose a temperature of approximately 175° F., which "is "held for a period sufficient to completely destroy the life of all bac- "teria, usually for about fifteen minutes".

The evidence on which the learned primary Judge relied, namely that of C.P. Callister and Professor Young, establishes that a temperature of from 150° to 175° F., held for about fifteen minutes, will, for all practical purposes, completely sterilize the cheese. Thus C.P.Callister deposed:

Q. What is the general result?

A. The general result is that we have a marketable product which is for all practical purposes completely sterilised in spite of the fact that these counts show that there are present a few organisms which, when submitted to favourable conditions, can grow. In the conditions in which they are fixed in the sample they will not grow.

Professor Young, in answer to questions put to him by the learned Judge, deposed thus:

Q. Is it fair to describe your opinion as this: that this treatment, heating and stirring up to 175°, for a period, would not destroy all the bacte:

ial life, in a scientific sense?

A. Yes

Q. With this medium, this cheese so treated, do you say that the bacterial life that is left is in surroundings in the medium very unfavourable for its development?

A. Yes.

Q. Why do you say that medium is unfavourable ?

A. Because of the presence of acids and of salts.

Q. Did you say in the absence of food material?

A. In the absence of sugar foods.

Q. Do you say that the inhibition is so extensive that if the product can be kept hermetically sealed, the bacteria will not operate to any extent sufficiently to materially alter the product over a considerable period?

A. Yes.

Q. Do you go so far as to say that it would remain substantially the same, as far as bacterial activity was concerned, for the life of the container, assuming it was hermetic?

A. Yes, for the life of the container.

If this evidence requires support, the conduct of the defendant supplies it. He surreptitiously acquired from an employee of one of the plaintiffs all the information he could in relation to the process used by them, and in his ~~possession~~ operations of the process, inspected under

an Order of the Court, employed a temperature of about 150° F.

Apparently some spore formations (which are very resistant to heat) and possibly some active micro-organisms may remain in the cheese, but they are in a very unfavourable environment for reproduction, and are negligible from a commercial point of view. Further, it should be observed that nothing in the evidence denies the possibility of destroying all the micro-organisms or bacteria in the cheese, by holding the temperature of 150° to 175° f., for a longer period than fifteen minutes, or by carrying it higher. The destruction of micro-organisms appears to be only a question of temperature and time, though we should suppose that, in working conditions, a destruction of all micro-organisms was almost impossible.

But it is argued that the process cannot and does not achieve its aim and claim - the complete sterilization of cheese of the cheddar genus. It is not established that a temperature of 175° F. held for a longer period than fifteen minutes, or that a higher temperature than 175° F., held for fifteen minutes or longer, will not completely sterilize the cheese; but it is established that, while the process worked at a temperature of 175° F. for ten to fifteen minutes will not completely sterilize the cheese, yet, substantially and practically, it does destroy all the micro-organisms deleterious to the cheese. The object of sterilization is to preserve the cheese, to render it "permanently keeping", and if that object be achieved, then, in our opinion, the sterilization contemplated ~~and~~ and directed by the invention has been fulfilled. Fletcher Moulton L.J. in "Z" Electric Lamp Co

v. Marples 27 R.P.C. 737, said: "To sum up, carbon, as injurious carbon, "is removed by the invention; carbon from the chemical point of view is "not removed. A lamp maker.....would naturally imagine that the whole "of the carbon had been removed, because the deleterious consequences of "the presence of carbon no longer existed, and that was the only way in "which he was aware of the presence of carbon. That being so, I think "that the erroneous view, from the chemical standpoint, was one into which "a lamp maker might naturally fall, and that it would not.....diminish "the completeness of the disclosure to the public of the invention, how "to apply it, and what its practical consequences would be. Consequently "I hold that, according to English Patent Law, such an error is unimpor-"tant". So here, the micro-organisms, as organisms inimical to the keeping of cheese, have been substantially removed: scientifically, some few persist. A cheese maker would imagine that the micro-organisms which ripened and destroyed the cheeses had been removed because the deleterious consequences of the presence of those organisms no longer existed, or exist in such a form and in such infavourable conditions that they are negligible. If this be so, then, in our opinion, the slight misstatement of the inventor is unimportant and does not affect the validity of his invention.

However, the inventor has also stated and claimed that the cheese subjected to his process will be permanently keeping - that it may be kept indefinitely without spoiling. And it is argued that this is a misrepresentation. (Alsop's Case 24 R.P.C. 733, Hatmaker's Case 34 R.P.C.

317, 35 R.P.C. 61, 36 R.P.C. 231). Now, "permanently keeping" cannot, in its context, mean "everlasting", but rather that the cheese is freed of deleterious organisms that are likely to destroy it as a commercial ~~an~~ and consumable commodity: after all cheese is not for a museum, but for consumption. The parties do not seem to have devoted as much attention to the life of cheese of the cheddar genus after treatment by the plaintiff's process as could be desired. But there is reliable evidence that it will last as long as its container remains hermetically sealed. Outside its container, the cheese is exposed to the atmosphere, and to the micro-organisms constantly present in it. Containers may of course be differently constructed, but the type mainly used is made of tinfoil. Various witnesses depose that, under these conditions, a cheese treated by the plaintiff's process will last from one to two years, and even longer, whilst the ordinary life is only a few months. But the fact that impresses me is that cheese treated by the plaintiff's process was shipped on board a boat at Melbourne, carried in an officer's berth (not in cold storage) through the tropics to Singapore, and back again to Melbourne. It was opened at the trial, nine months after its manufacture and the voyage, and was found to be, as Professor Young said, perfectly edible. The bacterial count of this specimen is interesting. The count had increased on the return of the cheese from Singapore, but in temperate conditions the count again fell, and the cheese was perfectly edible.

No doubt a Specification which contains a material misrepresen-

tation of fact is avoided as against the Crown representing the public (Hatmaker's Case sup. per Scrutton L.J. at p 78). But it must be material and if we find, as we do here, that the cheese produced by the present process will, despite the non-destruction of a few micro-organisms at a temperature of 175° F., held for ten to fifteen minutes, maintain its character as a good and edible cheese during the life of its containers, and that the activities of such micro-organisms as are left within it are rendered harmless owing to their unfavourable surroundings, then, in our opinion, there is no misrepresentation such as would avoid the patent. Indeed, in our opinion, it is not incorrect to describe a cheese in which the micro-organisms are so suppressed that their activities are negligible, as permanently keeping.

Consequently, in our opinion, the judgment below should be affirmed as to the 1st and 2nd claims. The 3rd, 4th, and 5th claims are in our opinion bad: they claim a sterilized cheese, however produced; but this, under the Australian law, does not invalidate the Patent. See Patents Act 1903-09 s.61 The evidence establishes the utility of the invention covered by the 1st and 2nd claims, and also the infringement of those claims.

McANULTY v KRAFT

JUDGMENT. ISAACS J.

McANULTY v KRAFT

JUDGMENT ISAACS J.

Both parties in this case are entitled to just whatever protection the law strictly affords them, and nothing more. With respect to the appellant, the reason appears in the judgment of Henchman J. As to the respondent, the reason will appear later.

The main consideration for the Court, and indeed the only governing consideration -- for the question goes far beyond the actual litigants -- is to apply as between the patentee and the public not the rough justice of personal award, but the ordered justice that is measured by the mete-wand of the law. The duty of the Court is so strong in this regard that, as pointed out by Lord Tomlin (when Tomlin J.) in Safveans' case (44 R.P.C. at 56):- "It is the duty of a plaintiff to shew what is the meaning of his "claims, and if he fails the law can act without ambiguity being "pleaded." And that, as will be seen, was the view of Lord Parker in the Natural Colour Kinematograph case (infra).

The matter once understood may be put in a nutshell. I should have been glad if the circumstances had enabled me, as Lord Machaghten ~~said~~ once said, to keep it there.

Summarising the position from a broad point of view, avoiding all hypercritical examination of words, and allowing for all technical difficulties, it stands thus. The patent is essentially one for a process of "completely sterilising" cheddar cheese by heat, and maintaining that complete sterilisation by suitable containers so that the commodity is thereby rendered "permanently keeping".

Complete sterilisation of foodstuffs is not a mere theoretical aspiration. It is admittedly attainable by well-known methods in the full scientific sense as an ordinary working proposition, and therefore in its primary and ordinary sense the scientific sense is the true sense. The specification represents and promises that

complete sterilisation is achieved with respect to the micro-organisms in cheddar cheese, at approximately 175 degrees F., and that, as a consequence of that sterilisation, if it be maintained, the cheese will keep permanently. But that clear and direct representation and promise to the Crown, made in order to obtain the favourable exercise of its discretion, understood in the ordinary plain sense of the language used, has upon the admitted facts and the finding of the learned primary Judge, failed.

Consequently, following the authoritative example of the Privy Council speaking by Lord Sumner in Denham v Clan Line of Steamers (29 N.S.W. L.R. 65, at 67), in being "unwilling to favour artificial "constructions of simple words", the case in my opinion is ended.

If, however, on ultimate construction, based on a doubtful and controversial interpretation suggested by the respondents and adopted by the learned Judge, namely, in substance "complete sterilisation" means incomplete sterilisation, but sufficient to keep the cheese not "permanently", but only long enough for anticipated commercial purposes, then the specification is obviously open to the charge of avoidable ambiguity.

Lastly, assuming validity, there has been no infringement because the combination process has been departed from materially.

For all or any of those reasons, the appeal should succeed.

That is the position shortly stated. There is, however, a considerable mass of material which in view of varying opinions has to be sifted and appraised in order to obtain the simple result.

The first essential fact to apprehend and bear in mind is that the infringement alleged both as to process and product consisted in employing the process ~~and product~~ up to a temperature of about 150 degrees or 151 degrees.. In order to meet that fact, learned Counsel for the plaintiffs at the trial said in opening the case that Kraft "is claiming the range below 175 degrees" ~~and that learned~~ He evidently meant the range from 100 or 104 degrees to 175 degrees or

more. The learned trial Judge (Henchman J.) observed:- "That is "the crux of the claim." And on this basis the case proceeded to judgment.

At the close of the plaintiff's case learned Counsel for the defendant -- the present appellant -- moved for a nonsuit on the ground that no infringement or threat of infringement had been proved, and alternatively for judgment on the ground of invalidity of the patent, either for failure to achieve the results, or for ambiguity. The motion was refused.

It will become evident that the respondent's contention to claim the range below 175 degrees, and whether it descends to 100 degrees in order to embrace the stirring factor of the process, or only to 140 degrees, said to be the minimum killing temperature, in effect eliminates "complete sterilisation" as an independent factor, and reduces it from being the dominant feature of the process made possible by continuous stirring, to a feature subordinate to permanently keeping. Its meaning has to be bent to accommodate it to an artificial and varying sense of the latter phrase. Thus, to other defects there is added an inversion of grammatical and logical order, which in a homely way is expressed by saying it puts the cart ~~before~~ before the horse. The patent is ~~thereby transformed~~ thereby transformed.

In the British United Shoe case (25 R.P.C. at 656-7), Fletcher-Moulton L.J. said as to the duties of a patentee:- "He must first "make a useful invention; he must next with the fullest bona fides "describe to the public the best way of carrying out that invention; "and thirdly, he must leave the public in no doubt whatever as to "what constitutes that invention which he claims as his monopoly."

The contention that the whole range of temperatures ~~below~~ below 175 degrees is forbidden ground, discloses a breach of the second and third duties so described.

The true issues crystallised, as I understand the matter, are (1) whether "complete sterilisation" of cheddar cheese by this process, and reading the expression in an unambiguous sense, takes place at about 175 degrees F. for validity, and if so, then (2) whether it takes place substantially at 150 degrees for infringement, and (3) if it does not take place at about 175 degrees in an unambiguous sense, then whether there is any proper reason justifying the ambiguous use of that expression "complete sterilisation" in the other sense.

There is also another issue, which, though not argued, forces itself on the attention in a case like the present, when the matter is carefully examined. It is whether there has been a placing of the appellant's cheese in suitable containers as a necessary part of the combination process claimed. It involves the question whether so flimsy and imperfect a container as tin foil is admitted to be, is within the essential factor in claim referring to "suitable container".

At this point it is very desirable to advert to the expression "permanently keeping", in order to prevent misapprehension. There is

evidence both by Mr. Callister and Mr. Young that the cheese processed up to the desired thermal point will, if placed in hermetically sealed containers, last as long as the containers. That may or may not be true. But it is very material to observe that the phrase "permanently "keeping" is used both in the body of the specification and in the first two claims to denote cheese that has been both "completely "sterilised" and also so placed in suitable containers as to maintain the complete sterilisation.

In other words, it is not a mere condition of the cheese by reason of complete sterilisation. That is only in accordance with common sense and common experience. The distinction is brought out conspicuously by the terms of claims 3, 4 and 5, which contain no reference to "permanently keeping", but adhere to "complete sterilisation". Claim 3 assumes the process either in Claim 1 or Claim 2 to have been pursued as far as "complete sterilisation" or its synonym "sterile", but not necessarily further. Claims 4 and 5 assume the process either in Claim ~~xx~~ 1 or Claim 2 to have been pursued to its fullest limit by the use of hermetically sealed containers. Claim 2 always requires that, but Claim 1, while always requiring sterilised conditions for containers, and thus contemplating the maintenance of cheese sterilisation to secure "permanently keeping" cheese, leaves it optional to adopt some means other than hermetically sealing. That shews the necessity of interpreting "completely sterilised" and its equivalent "sterile" as the dominant causative and universal terms, independently of "permanently "keeping", which is the dependent term, possibly occasional, and having effect only as the necessary consequence after full force is given to "complete sterilisation" or "sterile", maintained. It is confirmed by the practice of the respondent Company. Mr. Callister stated in evidence that uncanned Kraft Cheese is put on the market as "pasteurised", while canned cheese is described as "sterilised", both being suhstantiall the same product.

The patent was issued pursuant to sec. 121 of the Commonwealth Patents Act, and bears date March 25th 1916. The section provides the circumstances in which any person who has applied for protection for any invention in, inter alia, a foreign state, "shall be entitled "to a patent for his invention under this Act in priority to other "applicants," and that the Australian patent shall have the same date as the date of the foreign application. It contains a proviso avoiding the patent in certain circumstances, which include (1) the grant being contrary to law; and (2) the patentee not having made foreign application for protection of "the said invention".

It is contended for the appellant on the question of validity that the grant is contrary to law. The point made is that though the invention claims to be a process of completely sterilising cheese, and maintaining its sterilisation, thereby producing a product permanently keeping, yet the process as represented and claimed does not completely sterilise the cheese, and does not thereby produce a cheese permanently keeping.

It is not in controversy that the patentee's lucky discovery that by continuing the formerly well-known practice of stirring the cheese up to melting point, when emulsion broke down, until the temperature reaches 140 degrees F., where the emulsion suddenly resumes, might well have been made the subject of a patent. But it is contended that there is no claim for this as a separate integer, and the claims have gone beyond all legitimate limit, and have taken the form of a combination that breaks down in material respects. The patentee, it is said, has set out and claimed a catena of processing hard cheese, beginning with the preparation of ordinary cheese for conversion into his improved product, including not merely the continued stirring up to say 175 degrees F., but also asserted complete sterilisation at that point, and continued sterilisation up to and including the final point of preserving the sterilisation in hermetically sealed or at all events sterilised containers, the product claimed being the completely sterilised and permanently keeping cheese. The process, it is said, admittedly includes old as well as new devices, and cannot be maintained if any material element of the combination be sacrificed.

Now the answer given by the respondents is easy to state, but to me impossible to comprehend, in view of the conditions of "permanently keeping" stated in the specification, and in the face of common understanding and the evidence given. It is this. The invention is really not one primarily for sterilising cheese, but for a "permanently keeping" cheese. "Permanently keeping" in the relevant sense means in a "commercial sense". A cheese which necessarily includes both canned and uncanned cheese is "permanently keeping" in a commercial sense if it will keep long enough for trade disposal in

the ordinary course of business, and learned Counsel for the respondents went so far as to urge that there might be different periods for the purpose, according to the individual expectations of trade of each producer, and in relation to each of his retail traders.

This last view I regard as a legitimate concrete illustration of the broad generalisation of the "commercial sense" period, as stated both in argument and in evidence. The result simply follows from that generalisation. The respondents say further that so far as sterilisation is concerned, the "complete sterilisation" necessary is sufficient to make the cheese "permanently keeping" in the sense contended for, and that that is the sense in which a commercial man or a cheese manufacturer would understand the expression "complete "sterilisation".

I find the respondent's view impossible of acceptance. Apart from the four steps in the process, it offends at every point of contact with well established principles and decisions. It cannot be reconciled with common experience, and it is inherently discordant when tested by examples.

Now, in approaching the determination of this matter from the affirmative side, there are two things to be kept distinct, and they are, as Lord Esher M.R. said in the Edison Bell Co. v Smith (11 R.P.C. at 395), the rules for construing a patent and the rules as to its effect when construed.

As to construction. The governing authority on this question is Patent Exploitation Ltd. v Siemens (21 R.P.C. 541), where the rule was laid down by the House of Lords. At p. 549 Lord Davey, who gave the leading judgment, said:- "I disclaim putting either a "benevolent or a malevolent interpretation on the specification, or "being astute either to uphold or invalidate the Patent. I am "of opinion that a specification like any other documents should be "construed by the Court according to the fair meaning of the language "used, after being informed by evidence of the nature of the subject-"-matter, the state of knowledge at the date of the Patent, and the

"meaning of any scientific or technical words that are found in it."

That was concurred in by Lords James of Hereford, Robertson and Macnaghten. It was, I think, evoked by what Vaughan Williams L.J. said in the same case in 20 R.P.C. at 234.

Later expressions to the same effect may be found, such as by Parker J. in British United Shoe Coy (26 R.P.C. at 50), who with special reference to the maxim ut res magis valeat quam pereat, says:- "If the construction of a document is otherwise reasonably clear, the "Court ought not to be influenced by considerations as to its legal "consequences if this construction is adopted." This, I need hardly say, is independent of a specially recognised requirement as to specification.

There is a passage in the judgment of ~~XXXXXXXXX~~ Lord Warrington (then Warrington J.) in Consolidated v Clark (23 R.P.C. at 702) that is well worth quoting. His Lordship said:- "The object of the con- "-struction of the specification is in all cases to ascertain what is "the invention described and claimed by the Patentee, and in fulfilling "that object, the specification ought to be construed fairly, not "leaning either towards the patentee or towards the infringer; on the "other hand, not taking hold of small verbal inaccuracies or technical "difficulties in order to deprive a genuine ~~XXXXXXXX~~ inventor of the benefit "of a real and genuine invention."

One general relevant rule of construction is that a specification must be read as a whole (Tubes v Perfecta - 20 R.P.C. at 96, per Lord Halsbury). If necessary even the provisional specification may be looked at. It goes without saying that the Court will look at the Letters Patent themselves.

A specification, subject to such supervision as it may receive from the Commissioner, is the patentee's own chosen language, selected in a sense ex parte, and is the foundation of his monopoly. As to whether the words of the specification are sufficient, and whether the claiming clauses define the invention unambiguously, says Lord Haldane in British Thomson-Houston v Corona (39 R.P.C. at 67),

"is a matter which always requires close scrutiny". "We have", said the learned Viscount, in a passage which condenses many decisions, "to "scan the specification with the closeness which is required in the "specification of any instrument conferring a monopoly, but subject to "this, all we can ~~xxxx~~ legitimately do is to apply the ordinary rules "for the construction of written ~~xxxxxxxxx~~ instruments."

The close scrutiny referred to represents the effect of decisions of the highest rank which ultimately concern the present case. As pointed out by Lord Haldane (loc. cit.), the necessity for close scrutiny is not the outcome of any personal notion of judicial policy, it arises from the requirement of Parliament, which has granted a monopoly on conditions. As Lord Haldane says:- "The stimulus to "development due to the protection of the Patents Acts may prove to "be less of an advantage to the State than would have been the stimulus "to free ~~xxxxxxxx~~ production in the interest of the consumer." Judges cannot balance these, so they are confined to interpreting the law.

Lord Dunedin in Marconi v Mullard (41 R.P.C. at 334) says:- "I "am bound to read a specification as I find it." That is, the specification must be judged of by its own language.

In Ingersoll v Consolidated (25 R.P.C. at 82-83), Lord Chancellor Loreburn said:- "I am not aware that any special canons of construct- "-ion are applicable to specifications..... Obviously, the rest of "the specification may be considered in order to assist the compre- "-hending and construing a claim, but the claim must state, either by "express words or by plain reference, what is the invention for which "protection is claimed. The idea of allowing a patentee to use "perfectly general language in the claim, and subsequently to restrict "or expand or qualify what is therein expressed, by borrowing this "or that gloss from other parts of the specification, is wholly inadmissible. "~~xxxxxxxxx~~. I should have thought it was also a wholly original "pretension."

If the Lord Chancellor could possibly have listened to the

argument in this case, he would have found the originality repeated.

His Lordship went on to say at p. 84:- "Patents are not uncon-
"-ditional grants of a monopoly. The patentee must, in return for
"his privilege, say plainly what is the invention for which he seeks
"protection, so that others may learn that and its limits." To that Lord Halsbury, Lord Macnaghten and Lord Atkinson agreed. The House refused to narrow the claims.

In Glover v Americal Steel Co. (19 R.P.C. at 109) Farwell J. had already said:- "It is incumbent upon an inventor, when he desires "to have the monopoly given to him by a Patent, to be explicit in "the words which he uses." The observation of Fletcher-Moulton L.J. in British United Shoe case (sup), already quoted, is to the same effect

It is a little difficult to sever entirely the rules of construction from the rules as to effect. Logically, it is possible to consider the meaning of the claims up to a point. If they are quite clear, or as clear as the subject will reasonably permit, the Court will state and act on its conclusions. The British Thomson-Houston case (sup) illustrates this. But it may be that at a certain point it is found that the specification is not as clear as the subject reasonably permits, and then the Court refuses to enlarge or restrict or qualify the words in favour of the patentee, and may without even arriving at a definite conclusion as to the meaning of the instrument, declare it avoidably obscure, or as it is said, ambiguous.

This is illustrated by the Natural Colour case ( 32 R.P.C. 256), particularly per Lord Loreburn at p. 267 and Lord Parker at p 269, the latter saying:- "It is open to the Court to conclude that the "terms of a specification are so ambiguous that its proper construction "must always remain a matter of doubt, and in such a case, even if "the specification had been prepared in perfect good faith, the duty of "the Court would be to declare the patent void." That is in accord with what Lord Davey said in Tubes v Perfecta (20 R.P.C. at 101). Lord Parker adds:- "Once again, though the Court may consider that "the meaning of the specification is reasonably clear, yet if the "specification contains statements calculated to mislead the persons

"to whom it is addressed, and render it difficult for them without "trial and experiment to comprehend in what manner the patentee "intends his work to be performed, these statements may avoid the "patent." The Court, however, says Lord Parker will always make allowances for the difficulties of the case.

This affirms Ashurst J. in Turner v Winter (1 T.R. at 605), who says that if the specification contains "anything which tends to mislead "the public, in that case the patent is void." See also Ridd's case (1916 2 A.C. 552).

Therefore, in brief, we have to consider the fair and reasonable meaning of the specification, including the claims, remembering the necessity for avoiding unnecessary ambiguity, and having regard to subject matter and other considerations mentioned by Lord Davey.

Applying that concretely, what is the proper meaning of "complete "sterilisation" of cheese, and "permanently keeping" cheese, having regard to the fact that there is nothing in the nature of the subject matter fettering precision of expression? The invention is not a pioneer invention in the realm of sterilisation by heat, exposed to the risk of mechanical equivalents for that purpose.

The English language is perfectly capable with complete security to the inventor of adding limitations such as are now advanced, as "for commercial purposes only", or, "sufficiently sterilised for the "anticipated period required by commerce", if such limitations were intended to be conveyed to the reader, and were not the later suggestions made to retrieve an error into which the inventor had for some reason fallen, and which led to a representation as to results that cannot be made good. Taking the construction at best for the respondent, I cannot doubt the specification is avoidably ambiguous, and does not sufficiently mark the limits to which a person may go but may not transgress without infringement.

That precision, where attainable consistently with fair protection to the inventor, is inexorably demanded by the law. Lord Wrenbury

in Hale v. Coombes (42 R.P.C. at 349 and 350) says:- "This was an "obligation at common law, and is an obligation by statute. If it "is not performed the patent is bad (see Frost on Patents, p. 220 et "seq. and the cases there cited). The public are entitled to know "what it is that by reason of the patent they are excluded from doing".

A member of the public ought not, for instance, to be driven to litigation because he takes exactly the same view of "complete "sterilisation" as the respondent Company itself took in its 1928 circular. A specification so vague cannot stand.

As to the suggested construction itself, the basic notion in the respondent's argument, as I have said, is, that in the invention "sterilisation"is secondary, and "permanently keeping" is primary, and limits "sterilisation", and that "permanently keeping" is itself limited to some temporary period varying with the protean requirements or anticipated requirements of trade operations until the article reaches the consumer.

Let us test this in the first place by the terms of the grant in the Letters Patent themselves, terms of the patentee's own choosing, and the final interpretation of the nature of the invention as understood by Crown and patentee. The invention applied for and granted under the Commonwealth Act is an invention for "Process of "sterilising cheese and an improved product produced by such process". It is not a patent for "permanently keeping" cheese, with a preferred method of effecting it. The patent recites that the patentee has made foreign application for protection of "the said invention", and as already stated, the grant is avoided if he did not.

That seems to me a clear answer to the fundamental contention on which the respondent's argument rests. The expression "permanently keeping" does not appear -- and "sterilising" does. That this conception was fixed and deliberate is shewn by the form of the claiming clauses, in which it will be seen, as already stated, that in Clauses 1 and 2 "permanently keeping" is interpreted in terms of "complete sterilisation", and "sterile", and dependent on

constantly maintained sterilisation, and in 3, 4 and 5, "permanently "keeping" is dropped altogether, and simply left to be assumed as an inevitable effect of the "complete sterilisation" which is claimed as the invention.

Sec. 33 of the Act requires that an application for a patent shall be for ~~more~~ one invention only, and the patentee must at all events have thought his one invention was a sterilisation process resulting in a sterilised product. Then sec. 36 provides that a complete sterilisation must comply with three requirements, viz.: (1) Fully describe and ascertain the invention; (2) Fully describe and ascertain the manner in which it is to be performed; and (3) end with a distinct statement of the invention claimed.

What does the general specification say? It begins with a descriptove heading as in the patent. Then it says:- "This invention "relates to an improved process of sterilising cheese, to render it "permanently keeping and to the product thereby produced." Here we get "permanently keeping" as a definite description of the "improved "product" resulting from the process. Then the words "cheese" and "permanently keeping" receive interpretation. The first is limited to cheddar cheese, and the second is "may be kept indefinitely without "spoiling under conditions which would ordinarily cause it to spoil". There is so far no attempt to interpret "sterilising", or to give any qualification of its natural and primary meaning.

Now proceeds the full description and ascertainment of the invention. I subdivide the description for better understanding it.

"The invention consists in the process of rendering cheese of "the cheddar group permanently keeping, according to which process:-

" (a) the cheese is heated and melted,

" (b) actively stirred while melted,

" (c) and while thus maintained on homogensous condition, raised
" in temperature to such degree as to effect complete
" sterilisation; and

" (d) then enclosed in protective containers under sterilised
" conditions."

Those are the four steps in the process of having the resultant product, if "permanently keeping". It is added:- "The invention also "consists in the process and product produced thereby as set forth "hereinafter."

There follows the statement as to common knowledge at the date of the patent. This is extremely important for our present purpose.

The patentee begins by reference to "various food products" with which every reader is presumed to be acquainted. Those food products naturally include fish, meats and fruits of every kind, from all parts of the world, passing into every variety of world conditions and remaining without any set limitation as to time, that is, "indefinitely".

As to these, the patentee, in order to lead the mind to the true meaning of his own invention, says:- "It is common knowledge that "various food products may be sterilised by the application of heat, "and then hermetically sealed under sterilised conditions, and so "rendered permanently keeping."

It seems to me that once we interpret this paragraph, the matter is ended against the respondents.

Not only does common knowledge, which is invoked in the passage itself, apply to the various terms which I have italicised, their natural and primary meaning, but the respondent's expert evidence places that meaning beyond doubt. Mr. Young says:- "There "are, however, other food products which are in fact completely "sterilised in a scientific sense, and must be so sterilised in order "that they may keep." That sentence, as it appears in the judgment of Henchman J., and therefore represents just what His Honor understood Mr. Young's evidence to mean, cannot be too strongly emphasised, and is, as I think, fatal to any contention that in food processes complete scientific sterilisation is unknown, even to scientists, and equally to any contention that "permanently keeping" as applied to foods on the market never connotes scientific sterilisation

Now let us see how the patentee applies this the master-key of the specification, to his own process. He says:- "The attempt tp "apply such treatment to cheese of the cheddar genus has, however, "invariably resulted in failure, so far as rendering the product "permanently keeping is concerned."

What "treatment" is referred to? Clearly inclusive of sterilisation by heat, and inclusive also of maintenance of sterilisation. And ~~xxxx~~ why has failure ensued, so far as rendering the cheese "permanently keeping" is concerned? That story is told in the next sentence.

Shortly, it is that just above melting point cheddar cheese disintegrates and ceases to be cheese, and cannot be restored to its homogeneous condition. That is according to knowledge prior to his invention. "For this reason", says the patentee, "it has been "impossible to treat such cheese to a high sterilising temperature "without spoiling it." Then comes the problem as it existed and which this invention was to solve:- "A completely sterilised and "permanently keeping cheese of the cheddar genus has not been produced "prior to the present discovery."

The wording of that sentence is notworthy. The two expressions, "completely sterilised" and "permanently keeping" are not simply coincident. They are cumulative, and are not convertible terms. Unless the further step of "maintaining"the sterilisation is added to the "complete sterilisation", you do not have a "permanently keeping" cheese as contemplated by the patent. That sentence is the central point of the specification, and is the focus of attention. In the American reissue patent to be presently mentioned, it ~~is~~ was treated as the central point. The product made in accordance with this invention is, when all the prior words are read, to be cheese that is completely sterilised, and only, therefore (if sterilisation be maintained), permanently keeping.

The patentee then proceeds to explain the distinction between

hard and soft varieties. The soft cheeses, which become in curing liquid or semi-liquid, "have been made permanently keeping by "sterilising with heat and sealing hermetically under sterilised "conditions." And why? He gives his explanation, viz.: that with soft cheeses all bacteria are killed. Some bacteria, those whose thermal death point is low, are killed below the disintegration point. All the rest are bacteria that require to kill them a comparatively high temperature, possibly by a toxic condition during curing. But the point is that in soft cheeses (and in other foods) all the bacteria are killed, and hence sterilisation of these cheeses has been possible. Now "sterilisation" is there clearly used in the sense of complete destruction of bacteria.

Now he comes to the hard cheese type. He says, "the making and "curing or ripening does not eliminate any bacteria present". "Some "require a relatively high temperature to kill them", and it follows that the high temperature for sterilising is imperative. He adds the ~~xx~~ other necessary factor, viz.: "Some treatment which will "prevent the high temperature from spoiling or disintegrating the "cheese".

That is the analysis of the two essential problem factors:- (a) a sufficiently high temperature to kill all the bacteria, in other words, to secure complete sterilisation; and at the same time, ~~(b)~~ (b) some treatmentto prevent the temperature during the sterilisation process from destroying the character of the cheese. Maintenance of sterilisation, once that is attained, is implicit.

Then comes the solution, which is the full statement of the invention and of the manner of its performance.

The first factor was already well known, though -- so far as appears -- it was not known to what temperature the cheese needed to be taken to obtain complete sterilisation. Everybody knows, and indeed the evidence shews, that bacteria vary as to thermal death point, and it is well known that even the same bacteria will vary as to the required temperature, acording as the heat applied is dry or moist,

or according to the nature of the medium in which the bacteria exist, as for instance in fat, or according to whether the medium is hard or soft, or allows or does not allow the heat to penetrate everywhere, and according to various other circumstances.

Shortly, everyone knows that there is no fixed temperature for all classes of bacteria in all classes of food. As the specification states, some bacteria are killed off below disintegration point, say, 100 degrees F., though Mr. Callister says that up to that point they are encouraged. So that it was unnecessary for the specification, in order to state sufficiently the process and the manner of performing it, which includes sterilisation, to state the temperature required for that purpose. This it does, and very positively, but before doing so it states the second essential factor of the process, which is in a phrase, stirring continued up to complete sterilisation.

At this point the patentee purports to state fully the manner of performing his invention. He says:- "The present invention is based "on the discovery that cheese of the cheddar genus may be prevented "from disintegrating under the action of heat as of high a temperature "as 175 degrees F., or even more, by subjecting the mass to proper "agitation and stirring continuously, or substantially continuously, "throughout the period beginning with the application of heat to the "cheese, and continued until it has reached the necessary temperature "and been maintained at that temperature amply long enough to insure "thorough sterilisation."

That brings us down to the end of the third step in the process previously described in steps.

But, says the patentee, to make his description of the matter up to that stage clear and complete, "A temperature of 175 degrees F. maintained for a "period of ten or fifteen minutes is ample to insure thorough sterilis- "-ation."

I may observe that there is no apparent reason for going so high as 175 degrees, or above 140 degrees, except to "ensure thorough

"sterilisation", or as the same process is called in the prior description of the invention where the steps are detailed, "complete "sterilisation". The point made is that by going to 175 degrees with continuous stirrings, and maintaining it for ten or fifteen minutes, you are sure to achieve the third step. And I may add there is no apparent reason for not going beyond 175 degreesF., though there are the possible reasons that the patentee thought a higher temperature would prejudicially affect the cheese as a commercial product, or that it would involve unnecessary time and expense.

However, the patentee then interrupts the description of the process by stating a preferred way which emphasises the assurance that 175 degrees F. for about fifteen minutes will "destroy the life of all "bacteria". The representation could not be more distinct and positive.

He then resumes his description by detailing the fourth step. He says:- "After complete sterilisation is assured", the cheese is run off into suitable containers, and ordinarily hermetically sealed under sterile conditions. This gives point to the third claim, and to what is meant by "permanently keeping". It is also an indispensable step in the combination process. "Suitable "containers" means containers suitable to preserve the complete sterilisation, whether hermetically sealed or not.

Now that is his full description. Having read the body of the specification, the mind is prepared to understand what the invention means when we come to the claim (per Lord Wrenbury when Buckley J. in Tubes v Perfecta - 17 R.P.C. at 588). In that way, and only in that way, can we properly understand, for example, the word "sterile" in the second claim.

The claims, except the third, which omits the containers, and therefore disclaims "permanently keeping", adhere to the whole four steps, and therefore do not disclaim either sterilisation or the containers. The combination as a whole is new, but only as a whole. That is to say, there is nothing which can be omitted as a useless integer, leaving the rest as the pith and marrow of the invention, as a combination. (See per Lord Dunedin in Marconi v Mullard - sup. at pp. 336 and 337.) In other words, both sterilisation and sterilised containers are material elements, neither of which can be omitted

without serious detriment to the result of the process (per Lord Davey in Consolidated v Caine - 20 R.P.C. at 766). The one possible divergence is as to sterilised containers hermetically sealed, and those not hermetically sealed,. [illegible]

The claims are:-

(1) The improved process of rendering cheese of the cheddar group permanently keeping, which consists in heating and melting the cheese, actively stirring it while melted, and while thus maintained in homogeneous condition, raising its temperature to such degree as to effect complete sterilisation, and then enclosing it in protective containers under sterilised conditions.

(2) The improved process of rendering cheese of the cheddar genus permanently keeping, which consists in heating it to approximately 175 degrees F. temperature for a substantial period, agitating or stirring the cheese during the treatment with heat, and finally placing it while sterile in suitably sterilised hermetically sealed containers.

(3) As a new article of manufacture, completely sterilised cheese of the cheddar genus.

(4) As a new article of manufacture, a hermetically sealed completely sterilised package of cheese of the cheddar genus.

(5) As a new article of manufacture, a hermetically sealed completely sterilised package of non-liquid homogensous cheese of the cheddar genus.

On the face of the documents and beyond the possible reach of any extrinsic evidence, it is clear that whatever meaning be given to individual expressions, the process is primarily directly and indispens--ably one for "complete sterilisation" of the ordinary cheddar cheese. The quality of "permanently keeping" is assumed as a natural and necessary consequence of the complete sterilisation, if that be preserved.

A claim is a disclaimer of what it omits (per Lord Dunedin in Marconi v Mullard - 41 R.P.C. at 334, adopting Lord Parker's statement

in Fellows v Lench - 34 R.P.C. at 55). These three claims therefore disclaim "permanently keeping" as a quality of the product to which the patentee lays ~~xkaxm~~ exclusive claim by reason of his invention. And he clings to "complete sterilisation" unqualified by "permanently "keeping".

It appears to me to be incontestable that if the cheese is not "completely sterilised" he fails, and necessarily also as to the accessorium of continued sterilisation, namely, "permanently keeping". (See Frost on Patents, Vol. 1 at p. 164) Even if the cheese is considerably but not "completely sterilised", as properly ~~prakkakky~~ construed, then as Lord Warrington said in Von de Linde v Brummerstaedt (26 R.P.C. at 299), "the result is not the result claimed by the patentee."

Probably this consideration led to the artificial interpretation of "completely sterilised" in the American reissue, which practically reverses the order of conception. In the absence of proper evidence to the contrary, the Court is bound to give to both expressions their primary and natural meaning. I think most of the literary references brought before the learned primary Judge emphasised the view that "pasteurisation", having a temporary effect of keeping foods, was to be distinguished from "sterilisation" (even without the adjective "complete") as having intrinsically a permanent effect. I do not exclude "Rogers", which on inspection is not, I think, by Mr. Rogers himself, but by some of his associates. But the primary and natural meaning of ordinary English words is not a matter of evidence. It is a matter of notoriety, and the knowledge is presumed to be possessed by Judges as part of the community.

But where that meaning is contested, it is a recognised doctrine of law that Judges may for that purpose have recourse to any source~~x~~ of information which they consider trustworthy. Whan I say for that purpose, I do not mean to seek for scientific information or ~~xkxkxxxxkx~~ statistics or trade practice, but merely for the general sense in which words are used in ordinary speech, and in a sense not specially or exclusively technical.

Authority for this is clear. In Stockdale's case (22 How. St. Tr. at 302) Eyre C.B., in delivering the unanimous opinion of the Judges to the House of Lords, said:- "Judges have no means of knowing matters "of fact dehors the paper, but by the confession of the party or the "finding of the jury; but they can collect the intrinsic sense and "meaning of a paper in the same manner as other readers do; and they "can resort to grammar and glossaries if they want such assistance."

In Tubes v Perfecta (sup at 96) Lord Halsbury said he had sent for Johnson's Dictionary to find his historical description of "network".

In Camden v Inland Revenue Commissioner (1914 1 K.B. 641) Cozens-Hardy M.R. said that in interpreting the Statute, "the Court "may no doubt assist themselves in the discharge of their duty by "any literary help which they can find, including, of course, the "consultation of standard authors and reference to well known and "authoritative dictionaries which refer to the sources in which the interpretation which they give to the words of the English language "is to be found."

In Taylor on Evidence (11th Edn. p. 22, sec. 21) it is said that a Judge "resorts to such documents or other means of reference as may "be at hand, and he may deem worthy of confidence". This is adopted in Best on Evidence (12th Edn. pp. 233-234).

In adopting this course, I find my own view as to the meaning of the terms "complete sterilisation" and "permanent keeping" confirmed by references of the character indicated. Dr. William G. Savage, an examiner in Health and Hygiene in London University and the University of Wales, in his work "Canned Foods in Relation to Health", being the Milroy lectures delivered in 1923 and published by the Cambridge University Press, says at p. 39:-

"The prevailing view, both scientific and popular, in regard to "canned foods is that they are types of preserved foods which remain "sound because the food is rendered sterile by the application of heat,

"and maintained in that condition by being kept in hermetically "sealed containers.....

"...When canned foods become unsound, the explanation offered "is either that the sterilisation is inadequate, or that the contin- "-uity of the tin was defective, admitting bacteria from outside "which decomposed the food."

Inadequate sterilisation, of course, refers to the insufficient destruction of the bacteria, whereby the medium is not "sterile". This gives force to the phrase "complete sterilisation".

Dr. Savage makes two quotations from what he says are standard text-books in support of that. The quotation he makes is:- "Microbial "changes occur when the goods have not been processed at a temperature "sufficiently high to destroy all the organisms which may have been "present in the uncooked food". I stress the word "all".

In Marshall at p. 464 (and the same passage occurs in the First Edition, 1912, at p. 388) says:- "Economic Considerations. For "certain classes of food products pasteurisation is widely applicable, "and is of an immense value from an economic standpoint. Preservation "by pasteurisation is at best, however, temporary..... For permanent "preservation, therefore, sterilisation must be adopted, and it is "upon the principle of sterilisation, coupled with prevention of "future contamination by hermetically sealing the container, that the "whole canning and preserving industry is based." Marshall was to some extent quoted at the trial.

The other reference by Savage is to Leach and Winton on Food Inspection and Analysis (4th Edn. 1920). They say:- "The preser- "-vation of food by canning was long thought to be due to perfect "exclusion of air, but is now known to depend on the perfect steril- "-isation of bacteria, and it has been proved that so far as keeping "qualities are concerned, it makes no difference whether or not air "is present in the can if the contents are sterile."

Some effort was made to weaken the phrase "complete sterilisation"

by identifying it with "thorough sterilisation" -- I admit the identity, but see no weakness. A rather interesting reference occurs in the Oxford Dictionary as to thorough sterilisation. It is to "Nature" for March 1st 1900, page 422, column 1. The phrase occurs in the last paragraph of that column, and when the passage referred to is read, it is found that for inoculation against plague there must be "complete steril-"-isation"of vaccine and thorough sterilisation of the syringe". I wonder if it could be suggested that that implies a less degree of care to kill micro-organisms in the syringe than in the vaccine?

An interesting parallel occurs in "The Age" newspaper of January 11 of this year, with reference to the pollution of the River Murray. It is stated that the medical officer at Yarrawonga advised the Council that "the water is not fit for human consumption unless it is completely "sterilised by boiling for twenty minutes." It surely seems plain that the expression in question is incompatible with implied limitation.

As to "complete sterilisation", two remarkable instances of confirmation by two of the respondents should be mentioned. One is contained in a circular sent by the respondent Company in March 1928 to all wholesale houses throughout Australia. The Company, said learned Counsel for all the respondents at the trial, got the patents. Mr Callister said the Company made arrangements with the American company. Most probably it is exclusive licensee in Australia. But in any case its acts are material, and all respondents are acting together. Inter alia it is said in the circular:- "Kraft Cheese by the nature of its manufacture has all "bacteria destroyed..... Thus if the foil is left intact Kraft Cheese "will keep indefinitely." The circular makes reference in this connection to some loaves of cheese sent to Singapore and said to be, on return to Melbourne, "in perfect condition". This, however, is not the Singapore cheese referred to in evidence.

But the attitude of the respondent Company on the meaning of "complete sterilisation" is markedly different when attracting business and when suing for infringement. As evidence of what the specification would convey to the mind of a manufacturer is using the term "complete "sterilisation", the circular is especially strong, being ante litem motam (see Hatmaker's case, per Swinfen Eady L.J. in 35 R.P.C. at 73, and per Lord Birkenhead in 36 R.P.C. at 236, line 20). The appellants' cheese, as a pièce de conviction, was purchased in May, 1928.

The other instance appears in a singular manner. The learned primary Judge (Henchman J.) laid some stress on the judgment of Geiger J. in Kraft v Pabst (17 Fed. Rep. 2nd series, 787). In reading that case, which was decided in 1927, it is perfectly true, as Henchman J. says, the case was a "reissue". But it is enlightening to state what the reissue was. The original American patent of May 25 1916, on the application for which the Commonwealth application was based, was surrendered, and a"reissue", as it is called, took place in 1919. That ended the 1916 patent, which apparently was the counterpart of the one before us. The reason for the surrender and reissue appears, so far as I can ascertain from the report cited, to have been the abandonment of "complete sterilisation" in its own sense. In quoting the passage in the specification beginning, "It is a well-known fact", and ending, "prior to my discovery", the new specification in the last sentence reads thus:- "and a completely sterilised -- that is to say, a permanent-"-ly keeping -- cheese of the cheddar genus has not been produced prior "to my discovery."

I do not stop to discuss the judgment of Geiger J. I will only say that the learned Judge italicised the words that I have italicised.

If the patentee, after three years, found it either necessary or desirable to interpret "completely sterilised" at what I called the central point of his specification, by "permanently keeping" -- with what proper effect I do not find it necessary to speculate -- it is a strong confirmation of the view that originally the expression so interpreted was thought to carry its plain everyday meaning as an independent characteristic, additional to and, if maintained, causative of "permanently keeping".

Apart from any properly admissible evidence to the contrary, of the character indicated by Lord Davey in the passage quoted from Patent Exploitation Co. v Siemens (sup), the meaning I would attach to the respective expressions are these:-

Complete sterilisation means the total destruction of life in all

bacteria contained in the cheese, and of spores or any spore forming bacteria. Spores, Mr. Callister tells, are living things capable of reproduction if put in a favourable environment, and are really a form of bacteria.

Permanently keeping I understand in the sense used by the patentee in his specification, namely, "keeping indefinitely", and by the Company in its circular above quoted, or by Marshall in using the phrase "permanent preservation". It of course, as was said by Henchman J., and repeated frequently during this appeal, does not mean preservation in a museum; nor would anyone suggest that it implies descent as an heirloom. But it is equally inconsistent with common sense to say it is satisfied by duration for "commercial purposes", which may mean a week or a month or a year. "Commercial purposes" must mean until the cheese can with varying ~~xxxxxxxxxxxxxxxxxxxxxxxxx~~ success, dependent on a multitude of incalculable circumstances, be traded off to some consumer, and then commerce ends. Is the consumer, who, after all, is or ought to be the chief object of consideration, to be allowed no time for keeping the cheese before using it? If he is, then how long? The maker may have had the article in stock a considerable period, in non-hermetically sealed wrappers; his retailer may have had it on his shelves a year; the ultimate purchaser may require it for use on a distant station, or on a voyage, or even to store it in his own home. How long does that mean for him? Has he contracted to eat it in a reasonable time? We know, every schoolboy knows, that fruit, fish and meat come to this country from abroad in containers, and are sent in the same way by this country abroad. Some of these are seasonal, some are not. But no purchaser buying preserved provisions troubles about seasonal considerations. Indeed, seasons differ in different parts of the world. Nor does his mind turn to reasonable anticipations of wholesale or retail dealing. He purchases and consumes when he needs to, because the goods are conserved.

The only reasonable meaning to give to "permanently keeping" in my opinion -- apart from clear proof of secondary technical meaning supplanting its primary general meaning -- is free from complication. It is that the article, if kept carefully in its

suitable to maintain the complete sterilisation, and for an unlimited time, that is, container, whether hermetically sealed or not, will itself keep as long as the maker or the buyer, trader or householder, whichever is in possession of it, wishes to keep it, having in view not its preservation as a specimen, but its ultimate consumption as an article of food. (cf. Llanelly v London - 8 Ch.App. at 949-50 and L.R. 7 H.L. at 567.)

If that is what it means, the specification -- and especially if read so as to include temperatures as low as 150 degrees -- is untrue and misleading.

Mr. Callister and Mr. Young's evidence as to hermetically sealed containers does not apply to the first claim. Even as to the second they do not overcome the failure to completely sterilise the cheese at 175 degrees and a fortiori at 150 degrees. The alternative is avoidable obscurity and ambiguity. To introduce such a vague generality as "for commercial purposes" is inadmissible in a case like the present.

It will be seen later how essentially this case differs in this respect from such a case, for instance, as the Saccharin case (17 R.P.C. 28). But Henchman J., in view of the evidence, in effect translated the words "completely sterilised" as meaning "closely approaching "complete sterilisation", and "permanently keeping" as "sufficiently "sterile to keep for commercial purposes".

Now I would first say a word as to the evidence. The learned primary Judge said in his judgment that Mr. Callister informed him "that the term 'completely sterilised' in a document relating to food "would mean to a commercial man sterilised to such a degree that the "remaining bacteria, if any, are innocuous in the ordinary commercial "life of the product." Apparently the witness spoke of canned and uncanned cheese alike, though their respective commercial lives must differ greatly.

But with great respect, that was not a matter for the witness, but for the Judge alone as a matter of law (per Lord Westbury in Lyle v Richards - L.R. 1 H.L. at 241). It was stating what Bramwell B. in Hills v London Gaslight Co (27 L.J. Ex. at 64) calls the conclusion instead of the premises. There was no evidence that in fact in commerce the expression "complete sterilisation" was ever used, or if

used was acted on or treated, as "incomplete sterilisation". The duty of construing the document was "delegated", as Lord Buckmaster says in Thomson-Houston v Charlesworth (42 R.P.C. at 208) to the witness, and then acted on by the learned Judge because the witness thought so. As to this, I adhere to what I said in Whitton v Falkiner (20 C.L.R. at 127), concurred in by my brothers Gavan-Duffy and Rich at p. 136.

As the meanings to be attached to the vital expressions "complete "sterilisation" and "permanently keeping", there is in addition to common knowledge no evidence whatever dehors the specification on which the Court could attribute any secondary meaning to those expressions to replace their primary and natural signification.

The learned Judge very distinctly found that in their primary senses the expressions were untrue. He said:- "I therefore have no "difficulty in finding as a fact that cheese processed at 175 degrees "according to the specification is not in the strictly scientific sense "a completely sterilised product."

As to permanently keeping, His Honor finds that the processed cheese "was so nearly rendered completely sterile, and the remaining "organisms were placed, owing to the nature of the cheese itself, in a "position so unfavourable to their development, that for all commercial "purposes the cheese was in such a condition as to be permanently "keeping".

Let us for the moment assume that all we have to consider is "commercial purposes" -- necessarily ending when the ultimate consumer purchases, the assumption being that he must be supposed to consume it instantly and not keep the product any longer. No other meaning can so far as I can see be given to Mr. Callister's words, "in "the ordinary commercial life of the product". For if you were to include the consumer after commercial traffic in the article has ceased, you must strike out the word "commercial" from Mr. Callister's definition, whatever else is substituted, or be launched into an extraordinary discussion as to the extended meaning of "commercial" as applied to those not in commerce.

But passing that by for a moment, what is meant by "so nearly "rendered sterile", and by "a position so unfavourable to development", and by "all commercial purposes"?

Take the last phrase first. It is a commonplace, the neglect of which I fear has led to much of the confusion in this case, that the specification must be construed as it would be at the date of the document. (See per Lord Esher M.R. in Nobels v Anderson - 11 R.P.C. at 523.) Now, at that date cheddar cheese was notoriously short lived. That is at the very root of the matter. "Commercial purposes" and consuming purposes were then of very short duration in relation to a manufactured cheddar cheese. It was to alter the period of life of the cheese by prolonging it that the invention was directed, that is, the life of the cheese for all purposes down to consumption. Of course, commercial purposes intervene in order to bridge the social distance between manufacturer and consumer. But what period of prolongation could be foreseen when the specification was first published? We must for this purpose ignore later practice. Finally, as the duration of commercial purposes was to be changed by the effect of the invention, their then current duration at the date of the patent could not itself be the measuring rod of either "complete sterilisation" or "permanent keeping". It was to be itself measured by them, whatever they meant independently. Manufacturers and traders, inter alios, were to be able to regulate their affairs as to cheddar cheese on a new basis.

That basis was defined by "complete sterilisation", "its main-"-tenance", and the consequent "permanently keeping", and as these were to be inherent qualities of the article and its stated environment, all owners of the cheese were to be able to regulate their affairs with respect to it on the same basis. Plainly a vicious circle of reasoning is not permissible.

Before you, standing at May 1916, can ascertain or imagine the probable duration of commercial purposes under the new state of things, including the purpose of storing cheese until sold, the

phrases referred to must first and independently be interpreted.

Even restricting ourselves for the moment to the interests of traders, I suppose that no one would deny that Australian manufacturers might reasonably include amongst their commercial affairs the exportation of cheese to other countries, as for instance, to India. The respondent Company had such trade in 1923. According to Mr. Callister, the processed cheese will keep without deterioration from internal spoiling agents for 12 months and perhaps more, in ordinary atmospheric conditions to be found in Australia, and if it were kept as a continuous heat of 100 degrees, it would keep for "several months". Is that "permanently keeping", as anyone in May 1916 would have understood it? That of course refers to the uncanned cheese, as to which it is sought to make the appellant liable.

I am of opinion that, with great respect to the learned primary Judge, he has misjudged the real issues.

If we examine the actual evidence as to the keeping quality of the cheese, it tells very strongly against the respondents on the issues before us. To begin with, the respondent Company only commenced business in 1926 under the patent, so that no test of the "permanently keeping" quality of the cheese made by the respondent can exceed that period.

Now, what does the practical behaviour of the uncanned cheese during that period indicate? I accept the summary of the evidence as acted on by the learned Judge. The best sample for the respondent was cheese processed on November 27 1928, at a temperature of 155 degrees F. approximately. It was prepared specially as evidence for this case in the presence of Mr. Young. We may therefore take as being processed and wrapped in the best manner to support the respondents' case, as non-hermetically sealed cheese. The original cheese contained 12 million organisms per gramme. When first processed its bacterial content fell to 1700 per gramme, a reduction of more than 99.98%. But so potentially active were the 1700 that on the rapid

tour to Singapore and back -- two months -- the bacterial content had increased to 65,000 per gramme, that is, over 382% from the time of starting. ^ The learned Judge puts it as a rise from .014% of the original 12 millions, to .5 of that number, which gives no notion of the only important fact, which is the ability of the remaining bacteria to continue reproducing if the Singapore conditions continued to exist, as they might well do in actual commerce.

nat the bacterial content was while at Singapore no one knows, it can only be conjectured

the rise to 65000 per gramme

In July the bacteria had, it is said, retired to 4800 per gramme. Now the question is not what quantity of micro-organisms had been expelled or destroyed or benumbed, but how many remained in the cheese ~~XSXX~~ as active or potentially active. In a 5-lb loaf, 1700 micro-organisms per gramme amount to over 3,800,000 for the loaf, and 65,000 per gramme amount to over 146,000,000 for the loaf. What that rapidly advancing count would have reached if the cheese remained in the tropics some time longer, we are left to conjecture. Even the reduced number of 4800 per gramme gives the very respectable count of 10,800,000 for the loaf. And in all this no account is taken of spores which retain their potentiality for evil.

Perhaps a simple test will be useful. Suppose the "Singapore" cheese had been made by soneone other than the respondents, and afterwards purchased by a retailer and exposed in his shop for sale with 146 million bacteria in it, would that be an infringement of the third claim, for instance, as a "completely sterilised"cheese of the cheddar genus? Can it be reasonably asserted that such a cheese is "permanently keeping" under any trade conditions to which it may be exposed so far as concern micro-organisms and spores ab intra? Yet that is what we are aske to affirm in respect of the product in this case.

It is plain there was no "complete sterilisation", even from a commercial standpoint, at least, unless "Singapore" conditions, as I may conveniently call them to designate a type, are to be excluded from commerce. Thus the one proved definite test of loaf cheese selected by the respondents is adverse to them.

I do not consider it any answer that the cheese remains edible, or that some persons enjoy a bacteria-infested cheese. The guarantee of freedom from all bacteria is broken, and in a substantial sense.

The results claimed have failed, and with what consequence? Lord Warrington (then Warrington J.) in Flour Oxidising Co. v Hutchinson (26 R.P.C. at 629), accepting the statement of the law by Parker J. in Alsop's case (24 R.P.C. 733), restated it in his own words thus:- "If "the patentee claims certain results from his invention, and in fact "the invention does not produce those results, or even if it fails to "produce any one of those results out of many, then the Crown has been "deceived and the grant is void." The learned Judge adds:- "But it "is necessary to distinguish between the results ~~in~~ which the patentee "claims from his invention, and the purposes to which in his opinion it "may be applied. If he says that an invention producing certain "definite results may be applied for certain purposes, and it turns "out that it cannot be applied for those purposes, that does not affect "the validity of the patent. It is only the statement of the result "which he says is to be obtained by the use of his invention which "affects the validity of his patent."

A representation that a certain result will be produced is fatal if it is falsified. It matters not if persons of practical experience know the contrary (per Lord Haldane in Osram v Pope - 34 R.P.C. at 390). As the learned Lord says:- "The question is whether the direction in "the specification is wrong; and it is wrong if it says that something "will do which will not do." The fact that Lord Haldane dissented from the final conclusion does not affect this statement of the law. Indeed, it is in accord with Lord Parker in the same case at p. 395. Speaking of a certain alleged representation that could not be made good, Lord Parker said:- "I think it clear that if there ~~is~~ be in the "specification a representation to the effect suggested, it is sufficient "to avoid the patent." His Lordship went on to say there was no express representation to that effect, and in the circumstances none could be implied.

In Hatmaker v Joseph Nathan (36 R.P.C. at 237) Lord Chancellor Birkenhead said (after quoting Lord Parker):- "Protection is pur-"-chased by the promise of results. It does not and ought not to "survive the proved failure of the promise to produce the results."

Here the two results claimed from heating up to approximately 175 degrees F. are "complete sterilisation" of the cheese as the immediate result, and "permanent keeping" as the consequent result, the first denoting instant condition to be maintained, and the second a time endurance quality.

The "purpose" is not stated, but is obviously human consumption. I am not sure how far since Hatmaker's case (sup) the "purpose" qualification in Flour Oxidising case (sup) may not have to be revised. But that is outside this case. It is sufficient to say that in view of Lord Warrington's enumeration of the law as to results, agreeing with that of Lord Parker, and Lord Birkenhead's pronouncement quoted, assented to by Viscount Cave, Lord Buckmaster and Lord Wrenbury, the failure as to either result, viz. "complete sterilisation" and "permanently keeping", is fatal.

Now, as I have said, this case is altogether distinguishable from the dicta in Saccharin case (sup). Those dicta, if in conflict with Alsop's case (sup), ~~xxxxx~~ or Flour Oxidising case (sup), or Hatmaker's case (sup), would be wrong. But they may stand on a distinct ground. The specification did not use the word "complete" in respect to conversion, but that is immaterial. The patent there was for improvements in the manufacture of toluene-sulpho-chloride, in connection with the ultimate manufacture of saccharin. The point was the conversion of toluene into toluene-sulpho-chloride. The specification said that the whole of the toluene, instead of about half, was converted into toluene-sulpho-chloride. About 94%, but not 100%, of the toluene was so converted. As to whether in these circumstances the whole of the toluene was so converted, North J. held it was, according to the common understanding of persons, chemists and manufacturers to whom it was addressed. They knew when reading the

specification that the conversion of the whole of the toluene into chloride did not mean to eliminate the working necessity of some loss of toluene. In the current language of the art, the word "whole" was so understood, and that is no exception.

If one said that the whole of a given quantity of wood was fashioned into a table, or the whole of a piece of silk was converted into a costume, the current use of language would take into account the necessary wastage. And in the Saccharin case the current use of language was proved both as to scientific and to manufacturing operation.

But another feature of distinction also presents itself. When 94% of toluene was converted into chloride, that was so ~~xxxxxxxx~~ much definite ~~xxx~~ fixed ~~xxxxxxxx~~ and unalterable advantage. The residue could not be ~~maleficent~~ maleficent. To revert to the instance of the table -- suppose only 95% of the wood found itself ultimately part of the table, the remaining 5% being ordinary waste. The statement would both in common speech and in tradesmen's speech be essentially true that the whole of the wood was made into a table.

But suppose the table became affected with white ants, and of these 99% were eradicated, leaving 1% of procreative elements of destruction behind, would it be essentially true that the table had been ~~xxxxxxxxx~~ completely sterilised? The first is the Saccharin case (sup); the latter is the present case.

The benefit attained in the loaf dispatched to Singapore was not a substantive final positive achievement, like the chloride, which could at any time be taken as a starting point for saccharin. The benefit in the cheese was a present comparative freedom from contamination which was not absolute and final. It was negative, because it meant the disappearance of noxious bacteria. It resembled treatment for rabies, tetanus or cancer. Any percentage short of "complete sterilisation" leaves the dreaded danger possible or probable, and for that the Saccharin case (sup) obviously offers no ~~xxxxx~~ analogy. No surgeon, chemist or bacteriologist would venture to say that in any of those sterilisation cases the process

was "complete". As to the present case, Mr. Young's evidence quoted with reference to ordinary foods is sufficient.

One further matter remains to be considered. The patentee has, in order to cast his net as widely as possible, claimed the whole process as one combined process eventuating in the finished article -- a "permanently keeping" cheese. Incidentally, he has claimed a new integer, namely, a completely sterilised cheddar cheese. But no other integer is separately claimed. Not only is the "complete "sterilisation" a necessary step, but also the maintenance of it is a necessary step to the permanent keeping of ~~xxxxxx~~ the cheese.

Now, assuming the evidence is correct that in hermetically sealed containers the cheese is permanently keeping, because it outlives the containers, it is clear that that evidence goes no further. We have to assume even in that case that the containers are "suitable", that is, to give effect to the basic idea of permanently keeping by maintaining the sterilisation as long as a person wishes to keep the article for the purpose of ultimate consumption. A container so flimsy that it would not last more than a day or a week or a month would not be a "suitable container" to comply with the combination process, which contemplates such "permanent keeping".

And so, in view of Mr. Young's evidence that even with perfect sealing or packing in tinfoil, mites are likely to nibble through or push up the folds and bring in bacteria, and in 6 months make the cheese disagreeable and decomposed, it cannot in my opinion be said that tinfoil is a suitable container for "permanently keeping".

This view is supported by the respondent Company's circular of March 1928 and its accompanying letter, which shew how risky is tinfoil where "permanently keeping" is required, and is also supported by the Company's practice of distinguishing the tin foil cheese as "pasteurised".

Strictly speaking, as this is not an action for passing off, but for infringement of a monopoly, and the public generally have to

to be considered, I think the respondents have failed on this issue also.

Summarising my conclusions, I am of opinion that:-

(1) The patent is invalid, because the representation or promise of complete sterilisation at about 175 degrees F. is not true.

(2) If the representation or promise is true in any sense other than its primary sense, it is unnecessarily ambiguous, there being nothing in the subject-matter or in the terminology available to prevent the necessary precision.

(3) If the patent represents or claims cheese to be "permanently "keeping" that is not made and maintained sterile, it is untrue.

(4) If "complete sterilisation" of cheddar cheese is attainable at temperatures lower than approximately 175 degrees, and particularly at 150 degrees or lower, the patentee has failed in his duty to disclose that fact, and his patent is void.

(5) "Complete sterilisation" is not attainable, even substantially, at 150 degrees.

(6) The combination process has not been infringed, because two material steps have not been adopted, namely, (a) complete sterilisation, (b) suitable containers for maintaining complete sterilisation have not been used.

Mc Anulty v. Kraft Cheese Company (Incorporated)

JUDGMENT. MR JUSTICE RICH.

McANULTY V KRAFT CHEESE COMPANY

JUDGMENT RICH J.

During the argument in this case I was struck on the one hand by the unmeritorious character of the defendant's conduct and on the other hand by the difficulty which the respondent experienced in presenting any argument which would accomodate itself to the exigencies of the specification. Unfortunately for the respondent the case turns upon the meaning and effect of the specification and the appellant's conduct has but a theoretical relevancy and that only to the question of infringement. The interpretation which Henchman J. adopted in his very careful and elaborate judgment appeared to me upon consideration to be untenable in two vital points. In giving a secondary or qualified meaning to the words

"complete sterilization" His Honour proceeded upon the assumption that the patentee or his draftsman was fully equipped with ~~the~~ a knowledge of bactericidal temperatures. Repeated perusals of the specification in relation to bacteriological facts established by the evidence leave me quite unable to adopt this assumption. Every line of the specification evidences the ignorance of the patentee, or his draftsman, as to the amount of heat required completely to destroy bacterial matter. I cannot doubt that the patentee meant what he said when he announced that a temperature of 175° F. maintained for a period of 10 or 15 minutes is ample to ensure thorough sterilization. It was because of this belief that he made complete or thorough

sterilization the object of his process. Secondly when Henchman interprets "permanently keeping" as describing a property in the cheese of keepng for such duration of time as commerce requires he appears to me to have limited permanence in a manner which the patentee did not contemplate and of which the consumer would certai ly disapprove. The truth is the property of "keeping permanently" as ascribed by the specification to the cheese refers to the durati of life which complete freedom from bacterial matter gives. Upon the construction of the specification which I feel constrained by its language to adopt it appears to me that the basi of the invention is the complete elimination of micro-organisms and the freedom from internal destruction which would belong to

cheese which contained no bacterial matter and was encased in sterilised containers. Upon the facts there is no escape from the position that the invention does not produce this result. It may be true that in temperate climates and with cheddar cheese manufactured according to ordinary practice containing the usual salts and having the common degree of acidity a high degree of keeping results from the use of the process. But in spite of the evidence of respondent's trade with the East and of the respondent's experimental consignment of a package to Singapore and back the expert and other evidence plainly shows that in tropical climates the processed cheese has a life which cannot be described as "permanently keeping". Moreover

if the properties of salt and acidity, which so far as the ~~invention~~ invention is concerned are accidental, were absent or diminished in cheese submitted to the process, its life would or might be comparatively short even in temperate climates. It cannot, therefore, be said that the failure of the process to fulfil the promise of the ~~xx~~ specification is only a little one. But even if it could, it does not appear to me that the patent law permits a departure from representations or a description of the invention in so basal a matter to be treated as immaterial. I have not felt it necessary to condescend to a detailed exposition of the evidence to justify the conclusion of fact upon which my judgment is based because it is so fully

dealt with by Henchman J.. Moreover, my brother Dixon J. has stated in his judgment the particular bearing the evidence has upon the considerations which, I believe, ~~seemed themselves~~ appear to him as we as myself as critical in the decision of the case. The appeal should be allowed with costs.

Brewer J.

Mc A N U L T Y  v  K R A F T  A N D  O T H E R S

The specification leaves no room for doubt that the invention which it describes is a process for the complete destruction by heat of all bacterial organisms in cheddar cheese, so that it will become " permanently keeping " . It is entitled " Process of " sterilizing cheese and an improved product produced by such " process " . The specification opens with the statement that the invention relates to an improved process of sterilizing cheese to make it permanently keeping . In the description of the process, the patentee says the cheese must be raised in temperature to such degree as to effect complete sterilization. In referring to the

difficulties which the invention is to overcome, he says that it has been impossible to treat cheddar cheese to a high sterilizing temperature without spoiling it, and a completely sterilized and permanently keeping cheese of that genus has not been produced before his discovery. In offering an explanation of the fact that soft cheeses such as Camembert Limburger and Brie " have been " made permanently keeping by sterilizing with heat and sealing " hermetically under sterilized conditions " , the patentee says that in the curing process, all the bacteria which can only be killed by a heat of a comparatively high degree have been killed off while the remaining bacteria are all such as may be killed at a

relatively low temperature.

In contrasting cheddar cheese, he says that as some of its bacteria require a relatively high temperature to kill them, it follows that the high temperature for sterilizing is imperative.

The description of the patentee's discovery concluded with the statement that the cheese is to be maintained at the necessary temperature " amply long enough to insure thorough sterilization ", and is followed by the information that a temperature of $175^{0}$ F maintained for a period of ten or fifteen minutes is ample to insure thorough sterilization . In the course of stating a " preferred way " which may be adopted in carrying out the process, the patentee directs that the cheese be held at a temperature of

$175^{0}$ F. for a period sufficent to completely destroy the life of all bacteria ( a period which he fixes at fifteen minutes ) and then put in containers " after complete sterilization is assured ". Of the five claims, the first defines the process in terms which require a temperature of " such degree as to effect complete " sterilization ",the second specifies the temperature of approximately $175^{0}$ F. but directs that the cheese be put in containers " while sterile ", and the third, fourth and fifth claims define the product as a " completely sterilized " cheese, or packet of cheese. In fac of all this it appears impossible to understand the patentee as contemplating anything less than the destruction of all micro-organisms contained in the cheese. The fact that a

temperature of $175^{0}$ F. will not destroy all such organisms can scarcely be made a ground for modifying the interpretation of such explicit language. To suppose that the patentee was aware that spores and some bacteria would survive this temperature and then to read his specification as referring only to such " sterilization " as that temperature would in fact give, and such permanent keeping as would in fact result, appears to substitute an artificial presumption, and an unnatural explanation of terms, for the less generous, but quite evident, conclusion that he was ignorant of bactericidal temperatures.

The expression " permanently keeping " cannot be given a very precise connotation. " Permanent " does not mean perpetual

or eternal. But it is difficult to resist the view that in the specification the expression describes the freedom of the cheese from all liability to that destruction or deterioration which arises from bacterial agents contained in the cheese itself. The degree of "permanence" is that which results from the complete absence from the cheese of the agent which formerly made it a perishable commodity. The specification cannot be interpreted as if the expression " permanently keeping " were to be construed and applied without regard to the description of the process, and the statements that the cheese is to be completely sterilized. Any attempt to restrict its meaning or application by reference to the course of trade in cheese or to commercial purposes must fail.

If the cheese were rendered no longer subject to bacterial spoiling from within, a different course of trade might be established and, in any case, the consumer would be enabled to store cheese as a food no longer perishable ex sua natura.

The evidence accepted by the learned Judge from whom this appeal comes, shows that although the cheese is not completely freed from micro-organisms by a temperature of less than 250° F. , the spores, and the bacteria which survived the 175°F. would not develop under ordinary conditions. The acidity of the cheese, the presence of salts, and the extraction of lactose all militate against bacterial development, and in ordinary climatic conditions cheese treated at 175° F. will keep in proper containers for a long time.

But a large portion of Australia is subject to long periods of high temperature. The evidence of the plaintiff's principal witness upon the subject of temperature was that cheese treated by th process would keep without cold storage without any deterioration from internal spoiling agents for twelve months, and perhaps more but not absolutely irrespective of temperature. " If we got a " very prolonged period of $98^0$ or $100^0$ F. it would ultimately " spoil, but it would take a period of several months. I am " speaking there of spoilage due to internal spoiling agents."

Question. Due to inherent vice ?

Answer Yes

Question Even at $98^0$ F. it would last several months ?

Answer. I have actually kept samples in an incubator continuously at 98° F. day and night and taken them out at the end of four months and they were in good condition.

Although many general expressions were used by the witnesses attributing to the cheese a permanence of keeping which " is sufficent for all practical purposes " the effect, or probable effect of tropical climates upon cheese treated, according to the specification, at a temperature of 175°F. was not closely discussed. Some evidence was given that the plaintiff Company successfully conducted a trade with the East : and as an experiment made for the purposes of this case a package of treated cheese was sent to Singapore and back. The experiment appeared to show that a development of the spores took place which ceased as

soon as the cheese was returned to temperate latitudes, and that probably the bacteria then diminished. The development was not considerable, but how it would have progressed had the cheese remained at Singapore is not clear.

The result may be summed up thus :- Cheese treated at a temperature of $175^{0}$ F. is not completely sterilized as stated in the specification, but, because of properties in the cheese to which the specification does not refer, the micro-organisms which remain will not develop in a temperate climate, and the cheese will accordingly keep for a very considerable length of time : in tropical climates however the micro-organisms undergo some development, and if a high temperature is maintained, the cheese will keep only for a period

expressed in months.

The fact that a patentee misconceives and misstates the theory of his invention does not invalidate his patent. The theory may be wrong but if his process is right the patent may be supported notwithstanding his faulty theory. See per Buckley J. in Atkins v Castner Kellner Alkali Co 18 R.P.C. 281 at p.294.

Accordingly in Z Electric Lamp Mfg Co v Marples 27 R.P.C. 737 when it appeared that the patentee's statement that the use of phospham, phosphoramide etc removed even the last traces of carbon in the Filament of lamps, was chemically incorrect, the patent was nevertheless supported because whatever carbon remained ceased to be injurious and had none of the consequences which otherwise followed from the

presence of carbon. In such a case the result achieved by the process is exactly that promised by the patentee. What is erroneous is his account of the chemical changes produced by the process by reason of which the result is obtained. In this case the process itself is complete sterilization by heat made possible by continuous agitation. The commercial result of such a process is a cheese which can in no climatic conditions be affected by micro-organisms save those communicated ab extra. The " permanent keeping " of such cheese is of a different order to that which depends upon the presence of constituents in cheese which prevent or retard development and upon the absence of high climatic

temperatures. A completely sterilized cheese would keep although there had been an incomplete expression of whey so that more lactose than usual remained, although less salt had been used in the manufacture of the cheese and although it was stored for some time in a tropical climate.

Why it is that salt, acidity and absence of lactose do notgive a greater freedom from bacterial deterioration to cheese which has not been submitted to the process nowhere clearly appears, but accepting fully the evidence that these properties are efficacious in the case of cheese which has been heated to 175° F. according to the process, the fact remains that the keeping qualities of such a cheese do not depend wholly upon the application of the invention, but upon characteristics given to/ or

acquired by the cheese in a process of manufacure adopted and developed partly with a view to arrest or retard the growth and action of the very micro-organisms which the invention professes entirely to destroy.

Moreover although witnesses,upon whom the Judge relied,used language which attributed to the cheese a duration of life as useful for practical purposes as that of a completely sterilized commodity, the reference to twelve months, and even more in the evidence quoted in this judgment suggests, to say the least, a very modified permanence.

The specification does not fix on I75$^{O}$F. absolutely as the

temperature to be used, and it may be said that it is merely a mistaken suggestion, and that the process really requires the cheese maker who uses it to select a sterilizing temperature in the exercise of an independent bacteriological knowledge. Upon this view the second claim alone might be directly affected by the error. Great difficulty however would then arise because of the insufficency of the specification in describing a workable process by which sterilization could be effected. Moreover Mr A.R.T. Brown, a witness called for the defendent, says that if the temperature was raised to 212$^{O}$F. you would no longer have cheese at all, and it appears that a temperature of 250$^{O}$F. is required to secure complete sterilization. The result however of adopting such an

interpretation of the specification would be that the defendant has not infringed the valid claims in the patent because he did not use a sterilizing temperature. For sometime the view seemed plausible that, when all the verbiage of the specification is cleared away, it describes no more than a practical and very useful method of subjecting cheddar cheese to high temperatures, and that the erroneous statement that 175°F. was enough to destroy all the bacteria, while serving to explain the manner in which the patentee has expressed himself did not vitiate the grant because it did not, in substance, describe an essential part of the process claimed or of the result promised, and did not constitute a material representation.

The fact is, however, that the patentee sought protection, not for a process of heating cheese, but for an absolutely sterilizing process and a completely sterilized product, and did so upon the mistaken assumption that 175° F. was enough for his purpose, and he made this assumption the basis of the invention for which he claimed. Accordingly his patent must fail.

The appeal should be allowed with costs, and judgment entered for the defendant in the action