

FUSO ELECTRIC WORKS, MICHIO }
 HAYASHI AND TOMISABURO }
 NARUSE (PLAINTIFFS) }

APPELLANTS; * 1939
 * May 30, 31.
 * June 1, 2.

AND

CANADIAN GENERAL ELECTRIC }
 COMPANY, LIMITED (DEFEND- }
 ANT) }

RESPONDENT. 1940
 * Feb. 26.

ON APPEAL FROM THE EXCHEQUER COURT OF CANADA

Patent — Re-Issue — Validity — Claims.

Appellants sued (under s. 60 of the *Patent Act, 1935*) for a declaration that respondent's patent, a re-issue patent, relating to "frosted glass articles and methods of making same," was invalid and void, or a declaration that no valid claim thereof was infringed by the sale or use in Canada of appellants' electric incandescent lamps. The action was dismissed by Maclean J., President of the Exchequer Court, [1939] 1 D.L.R. 412, and appeal was brought to this Court.

At the time of the re-issue, the relevant enactment in force as to re-issue of patents was s. 27 of the *Patent Act, R.S.C., 1927, c. 150*.

In the re-issue patent no change was made in the specification but change was made in the claims. In the re-issue patent there were

* PRESENT --Duff C.J. and Rinfret, Davis, Kerwin and Hudson JJ.

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four claims, the first two having been in the original patent (as claims 8 and 9) and the other two being introduced by the re-issue patent. The claims were:—

1. A bulb for electric lamps and similar articles having its inner surface covered with rounded etching pits or depressions.
2. An incandescent electric lamp bulb having on its inner surface rounded etching pits or depressions.
3. A glass electric lamp bulb having its interior surface frosted by etching to such an extent as to be free from objectionable glare, said interior bulb surface being characterized by the presence of rounded as distinguished from sharp angular crevices to such an extent that the strength of the etched bulb is sufficient to withstand shocks due to commercial handling.
4. A glass electric bulb having its interior surface frosted by etching to such an extent that the light is sufficiently diffused to obviate glare, said interior bulb surface being characterized by the presence of rounded as distinguished from sharp angular crevices, to such an extent that the strength of the bulb as compared to an unetched bulb of the same thickness has not been sufficiently reduced to preclude commercial handling.

Held: The appeal should be allowed and respondent's patent declared invalid and void.

Per the Chief Justice and Davis and Hudson JJ.: There may have been patentable invention in devising the method, dealt with in the specification, of strengthening frosted glass for the purpose (*inter alia*) of constructing glass bulbs; the real difficulty in respondent's case lay in the manner in which the claims are framed.

As to claim 1: The word "covered" is an ordinary word and, using it in its ordinary sense, it is plain on the evidence that the surfaces of appellants' bulbs do not fall within that description (nor do the surfaces of respondent's bulbs as manufactured and sold by it), and therefore (apart from any question as to whether claim 1 embodies on its proper construction a patentable monopoly) there was no infringement.

Claim 2 is too broad to constitute a valid claim, extending in its application (in the light of the evidence as to existence or production of rounded depressions) to bulbs which have not been submitted to respondent's strengthening treatment or to anything that could properly be described as a strengthening treatment.

Claims 3 and 4 would have been invalid had they been introduced in the patent originally, and also they are such as would give a new character to the invention and the re-issue patent is invalid accordingly. The effect of the evidence is that the inventor had not produced a bulb which would "obviate glare" or be "free from objectionable glare" in the normal meaning of the words (and on the evidence "glare" is not a term definable by reference to any special usage in the art) and that he had not disclosed any means of doing so; further, as regards this characteristic the claim is too indefinite—the ordinarily skilled person is not given a sufficient guide as to its limits; further, on construction of the specification, the

problem of glare was not one to which the inventor was applying himself. Nor in the original patent did the problem as to sufficiency of the bulb to withstand the shocks of commercial handling present itself to the inventor; in his specification he gives directions for producing a bulb with a high degree of strength as determined by the "bump" test, but he did not apply himself to the relation between strength as shown by that test and the sufficiency of the bulb to withstand the shocks of commercial handling. As shown by the evidence, while the interior bulb surface of respondent's commercial lamp is (forming a contrast in this respect to the surface of the patent lamp) the surface of a lamp possessing, no doubt, the characteristic described in claims 3 and 4—a lamp combining resistance to shock sufficient for commercial purposes with a high degree of absence of glare, yet this was the result of much experimentation after the invention—experimentation directed to definite commercial ends which the inventor had not in mind and leading to a procedure different from his; and the re-issue provisions of the *Patent Act* cannot legitimately be employed for the purpose of ascribing this result to the inventor and remodelling his invention to make that invention conform to it. There was nothing to support the proposition that the specification in the original patent was "defective or inoperative" by reason of any of the causes mentioned in the statute.

Moreover, as regards the re-issue patent as a whole, each of the four claims is in respect of an article, while the invention as described in the original patent is an invention of a process for strengthening frosted glass articles.

Per Rinfret and Kerwin JJ.: Upon construction of the specification and claims in respondent's original patent it is evident that if there was invention it was in a strengthening treatment and not in an article strengthened by any means whatsoever. It is clear from the claims in the re-issue patent that what is now claimed is an article; it is not a correction of the original patent made "by reason of the patentee claiming more or less than he had a right to claim as new," but, if valid, is an entirely different invention; and this an inventor and those claiming under him are not entitled to do. A re-issue is not a grant of a new patent, but must be confined to the invention which the inventor attempted to describe and claim in the original patent.

APPEAL by the plaintiffs from the judgment of Maclean J., President of the Exchequer Court of Canada (1), dismissing their action which asked for a declaration that defendant's patent no. 289,379 (a re-issue of patent no. 252,159, relating to "frosted glass articles and methods of making same") is invalid and void, or a declaration that no valid claim of said patent is infringed by the sale or use in Canada of plaintiffs' electric incandescent lamps. Maclean J. found in favour of the defendant on the question of the validity of its patent and on the

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question of infringement. By the judgment now reported the appeal to this Court was allowed and judgment was directed declaring the patent in question in the action invalid and void, with costs throughout.

O. M. Biggar K.C. and *Christopher Robinson* for the appellant.

C. F. H. Carson K.C. and *H. K. Thompson* for the respondent.

The judgment of the Chief Justice and Davis and Hudson JJ. was delivered by

THE CHIEF JUSTICE—The respondents are the assignees of a patent granted to Marvin Pipkin on the 28th of July, 1925, and the action out of which the appeal arises was instituted in the Exchequer Court for the purpose of obtaining a declaration under section 60 of the *Patent Act, 1935* (Stats. of Can., 1935, c. 32) that the appellants' lamps made according to a process described do not constitute infringements of the respondents' patent; and that the respondents' patent is void on various grounds.

The nature of the invention, as conceived by the patentee, is best explained, I think, by reference to the language used by the patentee himself in his specification. He says:

My invention relates to frosted glass bulbs such as are utilized in electric incandescent lamps and similar electrical devices, and to other frosted glass articles in which the glass is thin and subject to breakage. My invention also relates to methods of preparing the frosted surface on such articles. It finds particular application to articles which are frosted on the inside. In the case of electric incandescent lamp bulbs, it has been recognized that an inside frosting is highly desirable since the advantage of light diffusion is secured thereby without the disadvantage of increased susceptibility to collection of dirt which exists when the bulb is frosted on the outside. In order to avoid the introduction of detrimental foreign materials into the lamp as much as possible, such frosting must be done by etching the glass either mechanically as by sand blasting, or chemically by reagents which have a solvent action on the glass. It has been found, however, that such bulbs are weak and break easily in response to shock. This has been shown by subjecting such lamps to the so-called "bump" test which has demonstrated that they are much weaker than the unetched bulbs and also bulbs which have been etched on the outside. The object of my invention is to overcome this defect.

The bump tester is a machine by which glass articles can be subjected to a breaking test and there is a scale

attached to this tester by reference to which the comparative strength of such articles can be indicated as shown by that test.

The inventor proceeds:

According to my invention, after the thin glass article has been etched on the inside, preferably by chemical means, it is treated with a chemical which has a solvent action on the material of the etched surface. The glassware is found thereafter to have much higher resistance to shock, as shown by the "bump" test. The probable explanation is that the first etching produces pits in the glass having comparatively sharp angles and that these are rounded out by the treatment comprised by my invention which may be called a strengthening treatment. The sharp angled pits or depressions caused by the first etching are starting places for cracks when the bulb is subjected to shock and the rounding of such pits or depressions apparently effectually prevents such formation of cracks.

The evidence adduced on behalf of the respondents deals explicitly with, first, electric light bulbs treated according to the directions of the patent; second, electric light bulbs frosted inside, manufactured and sold by the respondents and their associates, the General Electric Co.; third, a collection of 34 bulbs delivered to the respondents' expert witness, Mr. Spencer, and shipped from Japan to this continent; and, fourth, bulbs made by the appellants' expert witness in Ottawa according to a process alleged by the appellants to be employed by them in the production of their bulbs.

As regards the first of these classes of bulbs, there was produced at the trial a photomicrograph of a part of the surface of the inside of one of them, which was marked as Exhibit 26, and which was one of the lamps actually made by the process disclosed by the patent. Spencer is most explicit in saying that this photomicrograph shows a surface in which there are no sharp angular crevices, in other words, that all the sharp angular crevices produced by the initial frosting have been rounded out by the strengthening treatment, and two drawings by him are produced in which that very clearly appears. From the photomicrograph, as well as from these drawings, it appears that the surface is covered by these shallow, saucerlike depressions separated by ridges.

As regards the second of the four categories, he produced a photomicrograph marked as Exhibit "T." In

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the surface represented in Exhibit "T," as the expert explains, the sharp crevices have not all been rounded out; but the rounded depressions predominate.

Exhibit Z. 1, according to the witness, is a photomicrograph illustrating what he found on the inside surface of the frosted Fuso lamps belonging to a lot delivered at his laboratory as above mentioned. Of these lamps he tested 34. On this surface the rounded depressions predominate.

As regards the fourth category, the surface is represented by a photomicrograph, Exhibit Z. 3, and there the sharp angular crevices predominate, although there are also rounded ones. Spencer says (in answer to the question, "What do you say about the rounded etching pits and the sharp angular crevices in the relative sense in that picture?"), "There are more sharp angular crevices than rounded etching pits, or rounded depressions."

Now, it is convenient, I think, to consider at this point claims 1 and 2 which are in these words:

1. A bulb for electric lamps and similar articles having its inner surface covered with rounded etching pits or depressions.
2. An incandescent electric lamp bulb having on its inner surface rounded etching pits or depressions.

As regards both these claims, the evidence to which I have referred makes very clear the meaning which would be attached to the words "rounded pits or depressions" by a person skilled in the art. As regards claim 1, the word "covered" is an ordinary word and using the word in its ordinary sense it is quite plain that the surfaces of the appellants' bulbs as shown by the photomicrograph produced by the respondents (Exhibit Z. 1) do not fall within that description; and it is not contended that the bulbs produced by the respondents have a surface of such a character. The surface produced by the process described in the patent as shown in Exhibit 26 might fairly be said to be "covered" by rounded pits or depressions, but the contrast between such a surface and that found in Exhibits "T" and Z. 1 is admitted and signalized in the evidence of Spencer. Apart altogether then from any question as to whether claim 1 embodies on its proper construction a patentable monopoly, it is clear that there is no infringement and that the appellants are entitled to succeed as regards that claim.

As to claim 2, the surface described is a surface which has some rounded pits or depressions. It is, in my opinion, too broad to constitute a valid claim. It applies with equal justice to surfaces such as that represented by the photomicrograph, Exhibit Z. 3, and to those represented by Exhibits "T" and Z. 1. It applies, in other words, to bulbs strengthened to the degree of strength that characterized the commercial bulbs of the respondents and to bulbs having an inner surface corresponding to that shown by Exhibit Z. 1 as well as to bulbs which have not been submitted to anything that could properly be described as a strengthening treatment.

Spencer puts this expressly. He says, with reference to Z. 3, that such rounded depressions as are there shown may be produced by the initial frosting treatment because of the difficulty of getting rid of the powerful acid solution employed with sufficient rapidity to prevent some of the angular crevices being rounded. But surfaces with such an extremely limited proportion of rounded crevices, he declares, are not produced by the Pipkin process which includes as essential two stages, the frosting stage and the strengthening stage. He definitely excludes bulbs having such surfaces from the category "Pipkin bulbs."

Reverting now to Pipkin's invention as he describes it. It is shown that before Pipkin's invention it was well known in the art that by the application of a solvent solution to an etched glass surface, a surface might be produced corresponding to that shown by Exhibit 26. Spencer admits that this surface is very similar to that shown in figure 2 appended to the article from Die Glashutte, Vol. 17, 1887, produced and translated. The learned trial judge is, however, right, I think, in saying that Pipkin was the first to realize the fact that the application of a solvent solution to an etched surface may result in adding strength to glass which has been weakened by the etching process; and that this result could be utilized in the manufacture of glass bulbs in the manner effected by him. It is said that the discovery of the effect of the double treatment is without patentable subject-matter because it was only a discovery. In my view it is not necessary to consider this point. I am inclined to agree with the learned trial judge that in devising his method of strengthening frosted glass for the purpose (*inter alia*) of constructing glass

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bulbs Pipkin must be credited with patentable ingenuity; and while the discovery was no doubt the critical as well as the primary thing, there was manufacture as well.

The real difficulty in the respondents' case seems to me to lie in the manner in which the claims are framed. I have already dealt with claims 1 and 2. I come to claims 3 and 4. These claims were introduced by a re-issue patent in 1929. I have come to the conclusion that they would have been invalid had they been introduced in the patent as originally framed for reasons which I shall mention and, further, that they constitute an attempt to give a new character to Pipkin's invention and that the re-issue patent is invalid accordingly. Claims 3 and 4 are in these words:

3. A glass electric lamp bulb having its interior surface frosted by etching to such an extent as to be free from objectionable glare, said interior bulb surface being characterized by the presence of rounded as distinguished from sharp angular crevices to such an extent that the strength of the etched bulb is sufficient to withstand shocks due to commercial handling.

4. A glass electric bulb having its interior surface frosted by etching to such an extent that the light is sufficiently diffused to obviate glare, said interior bulb surface being characterized by the presence of rounded as distinguished from sharp angular crevices, to such an extent that the strength of the bulb as compared to an unetched bulb of the same thickness has not been sufficiently reduced to preclude commercial handling.

The monopoly defined in these claims is in respect of an electric light bulb which has its interior surface frosted by etching to such an extent "as to be free from objectionable glare" (as in claim 3) or "that the light is sufficiently diffused to obviate glare" (as in claim 4).

The expert witnesses called on behalf of the respondents do not say that the word "glare" has any special meaning for a person skilled in the pertinent art or arts. One of them says in a general way that there is some relation between glare and brightness. That relation is not defined. It is admitted that at the time of the trial a lamp such as Exhibit 27, constructed in accordance with the directions in the patent, would not "obviate glare" to such an extent as to be commercially satisfactory. It is admitted that the glare from such a lamp is very much greater than the glare from the appellants' lamps or the lamps dealt with commercially by the respondents. It is admitted that no bulb has been put on the market which

permits a glare as great as that proceeding from the patent lamp. It seems to me that the respondents are in this position: I think the effect of the evidence is that the inventor had not produced a bulb which would "obviate glare" or be "free from objectionable glare" in the normal meaning of the words and that he has not disclosed any means of doing so. Spencer, it is true, in answer to a suggestion from his counsel, said that, by limiting the period given in the patent for the application of the strengthening solution, glare might be reduced, but there is no suggestion of this in the patent. And in the most explicit way the patent gives the minimum of that period as ten minutes. Spencer's evidence is quite explicit also upon the point that in the case of the bulb produced by him the period was that given in the patent.

Again, it appears to me that as regards this characteristic the claim is too indefinite. I think the ordinarily skilled person is not given a sufficient guide and if, as seems to be argued on behalf of the respondents, glare, within the meaning of these claims, is to be determined by reference to the efficacy in the elimination of glare of bulbs on the market in 1924, it seems to me that the person whose duty it is to ascertain the limits of the claim is left in a hopeless position. I must make it quite clear, however, that I see no justification for construing the words "free from objectionable glare" or "obviate glare" by reference to any such standard, or for giving them any meaning other than that which they receive in current usage. The expert admitted, I repeat, that "glare" is not a term which they could define by reference to any special usage in the art. In the American patent, it should be observed, the claims profess to characterize the invention by reference to the degree of brightness permitted by the frosted surface produced in comparison with the degree of brightness in a lamp made of clear glass, such comparison being expressed mathematically.

It seems very clear to me that the patentee was not directing his mind to this question of glare. The question, as he himself says, for him—the problem which he set himself to solve—was that of strengthening bulbs with inside etching. The statement in the specification is the only statement we have from him.

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The respondents and their associates began putting bulbs frosted on the inside on the market in 1925. Admittedly they did not use the specific method given in the patent. They did not use the solutions. A short time after they began manufacturing these bulbs they abandoned the intermediate step of washing. Their expert says that they have learned how to make a frosted bulb almost as strong as a clear bulb with the sacrifice, however, of a great deal of diffusion. They have had to compromise and they have learned how to compromise. I can quite understand that, as the result of their experience between 1924 and 1929, they might arrive at the conception that Pipkin's invention was a frosted bulb with a given degree of strength which preserved at the same time a sufficient degree of diffusion to obviate glare, but there is no document proceeding from Pipkin supporting the proposition that such was his invention as he conceived it and there is nothing before us giving the slightest support to the proposition that Pipkin's specification as signed by him was inoperative or defective by reason of any of the causes mentioned in the statute. Pipkin's specification as signed by him is the only evidence we have before us as to the character of his invention and as to the nature of the monopoly he intended to claim. It seems quite clear that the problem of glare was one to which he never applied himself.

The second feature of the invention described in claims 3 and 4 is that the interior bulb surface is characterized by the presence of rounded, as distinguished from sharp angular, crevices to such an extent that the strength of the bulb is sufficient to withstand shocks due to commercial handling.

Now, the bulb made according to the directions of the specifications is of a strength of 34 on the bump test scale. And, according to the evidence of Spencer, a strength of 8 and upwards on that scale is sufficient to enable the bulb to withstand such shocks. Pipkin says nothing about commercial handling and there is no reason to suppose that he had any such test in his mind and there is every reason to suppose that he had not. The only test to which he refers is the bump test.

Pipkin's invention, as he himself explains it, consisted in treating glass bulbs with inside frosting in such a way

as to obviate the weakness of such bulbs. He gives directions in his specification for producing a bulb with a high degree of strength as determined by the bump test, but he did not apply himself to the relation between strength as shown by the bump test and the sufficiency of the bulb to withstand the shocks of commercial handling. That problem did not present itself to him, just as the problem of the elimination of glare did not present itself.

I have already mentioned that the respondents' expert contrasts the surface of the respondents' commercial lamps as shown by the photomicrograph "T" with the surface of the patent lamp as shown in the photomicrograph Exhibit 26. He says they are radically different. Now, the surface manifested by Exhibit "T" is the surface of a lamp possessing, no doubt, the characteristic described in claims 3 and 4, a lamp combining resistance to shock sufficient for commercial purposes with a high degree of absence of glare. But this was the result of much experimentation by the respondents after Pipkin's invention,—experimentation directed to definite, commercial ends which Pipkin had not in mind, and leading to a procedure different from Pipkin's. The re-issue provisions of the *Patent Act* cannot legitimately be employed for the purpose of ascribing this result to Pipkin and remodelling his invention to make that invention conform to it.

As regards the re-issue patent as a whole, moreover, the whole four claims are claims, each of them, in respect of an article, while Pipkin's invention, as described by himself in the patent of 1925, the original patent, is an invention of a process for strengthening frosted glass articles.

For these reasons the re-issue patent is invalid and void and the appellants are entitled to a declaration to that effect. The appeal should be allowed with costs throughout.

The judgment of Rinfret and Kerwin JJ. was delivered by

KERWIN J.—This is an action by the appellants,—a partnership known as Fuso Electric Works and the persons forming such partnership,—against the respondent, Canadian General Electric Company, Limited, under section 60 of the current *Patent Act*, being chapter 32 of the Statutes

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of 1935. Both subsection 1 and subsection 2 of that section were relied upon, as the statement of claim seeks a declaration that Canadian Patent No. 289379 granted to respondent for new and useful improvements in "Frosted Glass Articles and Methods of Making Same" was invalid and void, and a declaration that no valid claim of the patent was infringed by the sale or use in Canada of the appellants' electric incandescent lamps known as Fuso Lamps. In the Exchequer Court the action was dismissed, as the President considered that the patent was valid and that the appellants either did or would infringe the patent.

One of the reasons advanced by the appellants in alleging that the patent was invalid is that

it is not for the same invention as that for which Patent No. 252159, of which it is a re-issue, was granted and in the issue of the latter there was in fact no inadvertence, accident or mistake nor was such letters patent inoperative or defective.

The learned President did not deal with this contention but, in my opinion, the point is well taken and is sufficient to justify the allowance of the appeal.

It may be stated at once that the plaintiffs clearly are interested persons, within the meaning of subsection 1 of section 60 of the 1935 Act, and that there appears to be no reason to disbelieve the evidence of Naruse, one of the appellants, that he and Hayashi, another of the appellants, are the sole members of the partnership carrying on business under a name translated into English as Fuso Electric Works. The patent in suit, issued to the respondent and dated April 30th, 1929, was a re-issue of Patent No. 252159, granted to the respondent as assignee of one Pipkin on July 28th, 1925. The relevant statutory provision in force at the time of the re-issue was section 27 of the *Patent Act*, R.S.C., 1927, chapter 150, which section is as follows:—

27. Whenever any patent is deemed defective or inoperative by reason of insufficient description or specification, or by reason of the patentee claiming more or less than he had a right to claim as new, but at the same time it appears that the error arose from inadvertence, accident or mistake, without any fraudulent or deceptive intention, the Commissioner may, upon the surrender of such patent, within four years from its date or within one year from the thirteenth day of June, one thousand nine hundred and twenty-three, and the payment of the further fee herein-after provided, cause a new patent, in accordance with an amended description and specification made by such patentee, to be issued to him for the

same invention for any part or for the whole of the then unexpired residue of the term for which the original patent was or might have been granted.

2. In the event of the death of the original patentee or of his having assigned the patent, a like right shall vest in his assignee or his legal representatives.

3. Such new patent, and the amended description and specification, shall have the same effect in law, on the trial of any action thereafter commenced for any cause subsequently accruing, as if the same had been originally filed in such corrected form before the issue of the original patent.

4. The Commissioner may entertain separate applications, and cause patents to be issued for distinct and separate parts of the invention patented, upon payment of the fee for a re-issue for each of such re-issued patents.

In its petition for a re-issue the respondent merely states:—

That the petitioner is advised that the said patent is deemed defective, or inoperative, by reason of insufficient description or specification, and that the errors arose from inadvertence, accident or mistake, without any fraudulent or deceptive intention.

It does not appear from the documents filed on the application,—nor was any evidence adduced in the action to show,—what the alleged error was or why the patent was deemed defective or inoperative, and even yet it is difficult, if not impossible, to define the position taken by respondent in these respects.

The specifications in the old patent and in the re-issue are exactly the same; only the claims are altered. The inventor, Pipkin, in his specification states:—

My invention relates to frosted glass bulbs such as are utilized in electric incandescent lamps and similar electrical devices, and to other frosted glass articles in which the glass is thin and subject to breakage.

This statement indicates, it is said, that Pipkin's invention, when disclosed, will be that of a new article. The specification continues:—

My invention also relates to methods of preparing the frosted surface on such articles. It finds particular application to articles which are frosted on the inside.

This, it is stated, indicates that Pipkin's invention would also be of a method. The specification continues:—

In the case of electric incandescent lamp bulbs, it has been recognized that an inside frosting is highly desirable since the advantage of light diffusion is secured thereby without the disadvantage of increased susceptibility to collection of dirt which exists when the bulb is frosted on the outside. In order to avoid the introduction of detrimental foreign

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materials into the lamp as much as possible, such frosting must be done by etching the glass either mechanically as by sand blasting, or chemically by reagents which have a solvent action on the glass. It has been found, however, that such bulbs are weak and break easily in response to shock. This has been shown by subjecting such lamps to the so-called "bump" test which has demonstrated that they are much weaker than the unetched bulbs and also bulbs which have been etched on the outside. The object of my invention is to overcome this defect.

Pipkin then states that after the thin glass article has been etched on the inside, preferably by chemical means, it is treated with a chemical which has a solvent action on the material of the etched surface, and that the glassware is found thereafter to have much higher resistance to shock. He gives a probable explanation of why this should be so:—

The probable explanation is that the first etching produces pits in the glass having comparatively sharp angles and that these are rounded out by the treatment comprised by my invention which may be called a strengthening treatment. The sharp angled pits or depressions caused by the first etching are starting places for cracks when the bulb is subjected to shock and the rounding of such pits or depressions apparently effectually prevents such formation of cracks.

He continues:—

Although the scope of my invention includes other reagents having the solvent action on the etched surface, I prefer to use for this purpose a solution of alkalin fluoride combined with hydrofluoric acid.

He gives examples of solutions which he deems especially efficient and examples of those which he considers not as satisfactory, and describes a specific application of his invention. Then follow the claims. The first six of these are method claims, in which Pipkin subjects the etched surface of glass lamp bulbs and similarly thin glass articles to the action of a reagent having a solvent action on the material of the surface; to the action of a fluoride containing a reagent; to the action of an alkalin fluoride containing a reagent; to the action of a reagent containing ammonium bifluoride. Claims 8 and 9, which will be adverted to later, are article claims as is also number 7:—

7. An article of glass of a thickness similar to that of an incandescent lamp bulb and having a surface thereof covered with rounded etching pits or depressions.

Now upon the construction of the specification and the claims, it is evident, I think, that if Pipkin made any invention (which it is unnecessary to determine), it was in a strengthening treatment and not in an article strengthened by any means whatsoever.

When we come to the re-issue we find that the respondent, as assignee of Pipkin, reduced the number of the claims to four. Numbers 1 to 7 of the old claims are abandoned; 8 and 9 of the old claims appear in the re-issue as numbers 1 and 2. The re-issue claims are as follows:—

1. A bulb for electric lamps and similar articles having its inner surface covered with rounded etching pits or depressions.

2. An incandescent electric lamp bulb having on its inner surface rounded etching pits or depressions.

3. A glass electric lamp bulb having its interior surface frosted by etching to such an extent as to be free from objectionable glare, said interior bulb surface being characterized by the presence of rounded as distinguished from sharp angular crevices to such an extent that the strength of the etched bulb is sufficient to withstand shocks due to commercial handling.

4. A glass electric bulb having its interior surface frosted by etching to such an extent that the light is sufficiently diffused to obviate glare, said interior bulb surface being characterized by the presence of rounded as distinguished from sharp angular crevices, to such an extent that the strength of the bulb as compared to an unetched bulb of the same thickness has not been sufficiently reduced to preclude commercial handling.

These claims, it will be remembered, are in a patent, alleged to be valid, wherein appears precisely the same specification as was in the original patent. It is clear that what is now claimed is an article; it is not something more or less than Pipkin has a right to claim as new but, if valid, is an entirely different invention, and this an inventor and those claiming under him are not entitled to do. The re-issue is not the grant of a new patent but must be confined to the invention which the inventor attempted to describe and claim in the original patent.

For these reasons the appellants are entitled to a declaration that Patent No. 289379 is invalid and void. The security deposited by the appellants to cover any damages which the respondent might suffer through the operation of the injunction order issued by the Exchequer Court on January 5th, 1937, as varied by the order of February 1st, 1937, should be paid out to the appellants. The appellants are entitled to their costs of the action and of this appeal.

Appeal allowed with costs.

Solicitors for the appellants: *Smart & Biggar.*

Solicitors for the respondent: *Macfarlane, Thompson,
Littlejohn & Martin.*

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