

IN THE COURT OF APPEAL.

Before THE MASTER OF THE ROLLS AND LORDS JUSTICES ROMER AND MAUGHAM.

January 28th, 29th, 30th, and 31st, 1935.

NO-FUME LD. *v.* FRANK PITCHFORD & CO., LD.

- 5 *Patent—Action for Infringement—Counterclaim for Revocation—Insufficiency—Ambiguity—Analogous User—Infringement—Patent held invalid and order for revocation made—Appeal—Patent held valid but not infringed—Costs.*
- Letters Patent were granted for “An Improved Ash Receptacle for Smokers’ Use.” Claim 1 of the specification was as follows:—
- 10 “An ash receptacle which
 “without the use of movable parts retains the smoke rising from objects thrown
 “into it, characterised by the fact that it consists of a closed container (1, 2)
 “into which extends a shaft (3) of substantially constant cross section, the
 “sides of which with the sides of the receptacle form a trapped space closed
 “above whilst wholly beneath the shaft is provided a deflecting member (4)
 15 “which deflects objects thrown in wholly to one side of the lower mouth of the
 “shaft, the dimensions of the shaft and of the deflecting member being so
 “chosen relatively to one another and to the sides of the closed container that
 “the smoke rising from objects thrown into the container is collected entirely
 “in the trapped space, and after cooling is thrown down again without being
 20 “able during this movement to pass the lower mouth of the shaft.” The Plaintiffs commenced an action for infringement of this Patent and the Defendants counterclaimed for its revocation. It was held by LUXMOORE J (52 R.P.C. 28) that the Patent was invalid for insufficiency and for ambiguity, in that the invention, although stated to reside in suitable shapes and dimensions, was only
 25 defined by reference to the result. The Plaintiffs appealed.

Held, that the Patent was valid but not infringed. The appeal was allowed on the issue of validity and the order for revocation was rescinded. A special order was made as to costs in the Court of Appeal and below.

- Held, also that the monopoly may be defined by reference to the result and that
 30 the proportions need not be exactly laid down, if there is a field in which the

No-Fume Ld. v. Frank Pitchford & Co., Ld.

proportions may vary and yet within which success may be ensured, and if the dimensions are sufficiently described as to be ascertainable by tests not involving the exercise of any inventive faculty. *Otto v. Linford*, 46 L.T. (N.S.) 35, *Leonhardt & Co. v. Kallé & Co.*, (1895) 12 R.P.C. 103, *British Dynamite Co. v. Krebs*, (1896), 13 R.P.C. 190, *Watson Laidlaw & Co., Ld. v. Pott Cassells and Williamson*, (1911) 28 R.P.C. 565, and *British Thomson-Houston Co. v. Corona Lamp Works Ld.*, (1922) 39 R.P.C. 49, followed. 5

Held, also that a prior specification, not being a use at all, could not be adduced by way of an analogous user. *Pope Appliance Corporation v. Spanish River Pulp, &c., Ld.*, (1929) (46 R.P.C. 23), followed. 10

Semle per MAUGHAM L.J. that a paper offer for sale unaccompanied by exposure for sale of any infringing article did not constitute infringement, but might be a threat to infringe.

Letters Patent No. 253,518 with Convention Date the 9th of June, 1925, were granted to *Otto Reich* for "An Improved Ash Receptacle for Smokers' Use". 15 The Complete Specification of the Patent is set out in the report of the trial of this action for infringement of the Patent, (1935) 52 R.P.C. 28). On the 7th of November, 1933, *No-Fume Ld.* commenced an action for infringement of the Patent against *Frank Pitchford & Co., Ld.* claiming the usual relief. The Defendants denied infringement and counterclaimed for revocation of the 20 Patent. The pleadings are stated *ante*, p. 31. The action was heard by Mr. Justice *Luxmoore* on the 19th, 22nd, 23rd and 24th of October, 1934.

The Patent was held invalid for insufficiency and ambiguity and the action was dismissed with costs, and an Order for revocation of the Patent was made with costs, such Order to lie in the Office pending an Appeal. The Plaintiffs 25 appealed and the appeal came on for hearing on the 28th of January, 1935.

James Whitehead K.C. and *Lionel Heald* (instructed by *Simmons & Simmons*) appeared for the Appellants (Plaintiffs); *R. Moritz* K.C. and *G. H. Lloyd Jacobs* (instructed by *Philip Conway Thomas & Co.*) appeared for the Respondents (Defendants). 30

Whitehead K.C. for the Appellants.—The smoking ash tray was a known problem to which many minds have been directed; but nothing in the prior art is like the Patentee's device. The Patentee's solution of leaving a hole open has a rather surprising result that no smoke comes out. There has been a large commercial user. This brings the case within *Longbottom v. Shaw*, (1891) 35 8 R.P.C. 333. The inventor here has shown how to apply the principle of convection. He has discovered that, if he makes the entrance for the cigarette in the form of a cylindrical shaft, he will obtain a closed trapped space which will enable him to retain the smoke by the laws of convection, provided that he inserts a deflector below the mouth of the shaft so that the convection current 40 starts at the side, and provided there is a large enough cooling space to cool the smoke. Claim 1 is novel down to the word "shaft" and after that the result is put in as a limitation. The criticism of the judgment is that the Judge has put upon the Patentee the burden of describing to the public that which will not work. The drawings give perfect dimensions by the aid of which both 45 the Plaintiffs and the Defendants have succeeded in making many different models. A patentee may always call in aid the drawings, *Bloxham v. Elsee*,

No-Fume Ld. v. Frank Pitchford & Co., Ld.

(1827) 1 C. & P. 558. Insufficiency is a question of fact upon which evidence may be led and upon which the issue is to be determined, *Hill v. Thompson & Forman*, (1818) 1 Web. P.C. 235, at p. 237, (1844) *Muntz v. Foster*, 2 Web. P.C. 96, and *Dick v. Ellams*, (1900) 17 R.P.C. 449. The two last mentioned cases do not however quite go to the proposition for which they have long been cited that you can get a patent for a new use of an old article. But this does not arise any more than analogous user, as *Sayers* is only a paper Specification and there is no evidence that Sayer's ink bottle was ever made. [*Pope Appliances Ld. v. Spanish River Pulp & Paper Mills Ld.*, (1929) 46 R.P.C. 23 and *British Liquid Air Co., Ld. v. British Oxygen Co. Ld.*, (1908) 25 R.P.C. 577, at p. 601 were referred to.] The test of insufficiency is whether any invention is required to supply any deficiency or not, *The King v. Arkwright*, (1785) 1 Web. P.C. 64, at p. 65. Mechanics must be able to make a machine from the specification and be able to do so by care and not by invention. There is no evidence from the Defendants, upon whom is the onus of proving insufficiency, that the Plaintiffs' invention cannot be made. Anticipatory documents must to anticipate show a reasonably clear description of the Plaintiffs' invention. [*Otto v. Linford*, (1881) 46 L.T. (N.S.) 34, at p. 43.] The only qualification is that the prior document, read with the common general knowledge, must disclose either the invention or mechanical equivalents in order to anticipate. Saying proportions are not essential simply means that the invention will work within wide limits, and it does not make the Specification either ambiguous or insufficient that tests are required to see if the patented result is being obtained; *British Dynamite Ld. v. Krebs*, (1896) 13 R.P.C. 190, at p. 192.

It is no objection that a claim depends for its ambit upon the result to be attained. *Watson Laidlaw & Co. v. Pott Cassels and Williamson*, (1911) 28 R.P.C. 565, at p. 568, and Lord Kinnear at 576-578, were referred to, also *British-Thomson-Houston Co. v. Corona Lamp Works Ld.*, (1922) 39 R.P.C. 49. Another example of claims limited by the result to be attained is found in *Fox v. Astrakan Ld.*, (1910) 27 R.P.C. 377, where there was a patent upheld for cutting puttees to a suitable curve, and *Leonhardt & Co. v. Kalle & Co.*, (1895) 12 R.P.C. 103, where a claim defined by reference to suitable oxidisable substances was upheld. There has been confusion by the learned Judge between making experiments to supplement the specification and tests to see whether the result is to be obtained. Infringement was not fully argued below, but an offer for sale of an article offered as being non-smoking has been proved. An actual sale has been admitted and the article sold has been tested and found to smoke only very slightly.

Heald followed.—Ambiguity and insufficiency are separated in the Patents and Designs Act, 1932, Section 25, subsections 2 (*h*) and 2 (*i*). (*h*) deals with insufficient and unfair description; (*i*) deals with the scope of the monopoly claimed. As regards (*h*), Mr. Gill under cross-examination, stated that the method of application to ash trays was obvious when once you had been told the principle. As regards (*i*), if a man discovers the application of a principle to a particular field, then he is entitled to claim the whole field. *Minter's Patent*, (1834) 1 Web. P.C. 126, at p. 134, and *Househill Co. v. Neilson*, (1843) 1 Web. P.C. 673, were referred to.

Moritz K.C. for the Respondents.—The difference between Section 25, subsection (*h*) and (*i*) has been pointed out. We rely upon both, but (*i*) is the more important. A man honestly wishing to avoid infringement is entitled to

No-Fume Ld. v. Frank Pitchford & Co., Ld.

know whether he is infringing or not, *Cincinnati Grinders v. B.S.A. Tools Ld.*, (1931) 48 R.P.C. 33. A patent will not be held to be bad because general and broad directions are given, or even if you have to test to see if you get the result, but one must start by giving some preliminary indication. In *Fox v. Astrakan Ld.*, (1910) 27 R.P.C. 377, there were very sufficient directions, one 5 size of puttee would fit all male sizes. In *Watson Laidlaw v. Pott Cassels and Williamson*, (1911) 28 R.P.C. 565, there were instructions to make the angle much more nearly vertical than the existing 50° angle, and 40° and under was shown to work. But the present Patentee states that he has discovered that smoke can be prevented from escaping and that he does it by shape and 10 dimensions. There is not a single word about shape and the only thing about dimensions relates to the shaft. The criterion that the ash tray must not smoke is not a suitable one to give to ash tray makers, as it involves them in making several experimental models. It is said that the Patentee has discovered the application of a principle, but the principle is not to be found in the 15 Specification—convection action is entirely independent of size, only cooling is dependent on size. The cross-section of the shaft is to be substantially constant, but the Defendants are using a semicone angle of 6°, and Mr. *Gill's* evidence was that 10° would be within the Patent. Where is a workman to stop? Similarly the deflector must not project into the mouth of the shaft, but 20 in the Defendants' model it projects $\frac{1}{8}$ inch. It is said that the alleged infringement has all the dimensions which are claimed, but, if the Defendants' apparatus infringes, I do not know the ambit of monopoly. The only evidence on infringement is that the identical apparatus offered for sale and sold has 25 been shown to smoke moderately for some minutes by the joint experiments, although trade circulars state that they do not fume. It has been said that there has been a large commercial user of the Plaintiffs' invention, but the evidence is that the articles sold were all as modified by the improvement Patent No. 370,489, so that there is no evidence of commercial user to support 30 subject-matter.

Lloyd Jacobs followed.—The Specification nowhere refers to a principle or the discovery of a principle, the only instructions are so to devise the space around the shaft that the smoke will be contained within it. If the Claim therefore covers anything besides that illustrated, the variations are not deter- 35 minable. *Gadd v. Mayor of Manchester*, (1892) 9 R.P.C. 516, established that to obtain a valid patent there must be the exercise of patentable ingenuity in applying an old article to a new use. If *Sayers' ink bottle* were used as an ash tray, it would be obvious to make the entrance large enough to insert a cigarette. The same ingenuity is required of a workman to determine what 40 size to make *Sayers' ink bottle* for use as an ash tray as is required of a workman in ascertaining the relative dimensions to obtain the patented result.

Whitehead K.C. replied.—Only two classes were dealt with in *Gadd v. Mayor of Manchester* and this has been made clear in *Flour Oxydising Co. v. Carr & Co.*, (1908) 25 R.P.C. 428, which has been referred to with approval in *British Thomson-Houston Co. Ld. v. Metropolitan Vickers Ld.*, (1928) 45 R.P.C. 1, and 54 in *Pope Appliances Ld. v. Spanish River Paper & Pulp Co.*, (1929) 46 R.P.C. 52. If user is analogous, one cannot obtain a good patent (*Harwood v. Great Northern Railway*, (1865) 11 H.L.C. 564, and *Bonnard v. London General Omnibus Co.*, (1921) 38 R.P.C. 1) and, even though the analogous user is not obvious, still you cannot get a good patent, *Penn v. Bibby*, (1866) L.R. 5 Eq. 81. But this 50

No-Fume Ltd. v. Frank Pitchford & Co., Ltd.

is not relevant having regard to *Lister v. Norton Bros. & Co.*, (1886) 3 R.P.C. 199, as analogous user is what its name denotes, that is user, and does not cover a mere description. Further there is no direction to use *Sayers'* ink well as an ash tray. There is no obligation on a patentee of describing more than one way
 5 —the best way known to him at the time; and if that is done, that is a complete answer on insufficiency. Here a scale drawing is provided. Questions of infringement cannot affect questions of ambiguity or insufficiency. It is a question for the Court as to what is meant by "substantially constant" in cross-section, and because some departure from constant cross-section is permissible, that cannot
 10 amount to ambiguity. Where the same phrases occur in the claim and the specification, and the specification is sufficient, then there is no ambiguity, *British Thomson-Houston Co. v. Corona Lamp Works (supra)* was referred to. The alleged infringement smokes, but on Mr. *Gill's* evidence the smoking was not substantial. I submit that the Defendants have taken the substance
 15 of the invention, although not obtaining the maximum benefit.

Lord Hanworth, M.R.—This Action is brought by the Plaintiffs, *No-Fume, Limited*, who are the owners by assignment of Letters Patent No. 253,518, which were granted to *Otto Reich* for the invention of an improved ash receptacle for smokers' use. The Writ was issued on the 7th of November, 1933; and in the
 20 Statement of Claim the allegation was made that these Letters Patent were valid and subsisting, and that the Defendants had infringed and threatened and intended to infringe these Letters Patent. The Plaintiffs claimed an injunction and the usual consequential relief. The Defendants, *Frank Pitchford & Company, Limited*, in their Defence alleged that the Letters Patent relied upon
 25 were invalid by reason of the Particulars of Objections which they delivered; and they counter-claimed for revocation of the Patent. The Particulars of Objections were the usual ones: that the Patent was not novel; that there was no subject-matter; and, in particular, that the Specification and Claims were insufficient and ambiguous; insufficient, that is to say, to describe and to demarcate and explain what the invention was; and ambiguous in the sense
 30 that they did not delimit the area for which the protection was sought.

Reference has been made to Section 25 of the Patents and Designs Act, which by Sub-section 2 sets out the grounds on which a patent may be revoked. (h) and (i) are the material paragraphs in the
 35 present case. (h) is: "That the complete specification does not sufficiently and fairly describe and ascertain the nature of the invention, and the manner in which the invention is to be performed"; and (i): "That the complete specification does not sufficiently and clearly ascertain the scope of the monopoly claimed". Those were the points on which Mr. Justice *Luxmoore*
 40 came to a conclusion unfavourable to the Plaintiffs, and he accordingly dismissed the action on the 24th of October last. By his Judgment he held that the Patent was invalid; and he gave relief as asked in the Counter-claim, and he revoked the Patent. He granted, however, a stay of execution, if an appeal was presented within a limited time. The Appeal was presented on the 27th
 45 of October: and it is that Appeal which we have now heard argued before us, argued, I may say, very well on both sides, and with a succinctness which has made the argument all the more cogent. The learned Judge in his Judgment points out the importance of the difference between insufficiency and ambiguity. Also he said that Mr. *Moritz*, who appeared for the Defendants,

No-Fume Ld. v. Frank Pitchford & Co., Ld.

had directed his argument mainly to those two issues. As he rightly points out; "Insufficiency is directed to the issue whether the description is sufficient
 "to enable those persons to whom the specification is addressed to understand
 "how the subject-matter of the patent, if it is an article to be manufactured,
 "has to be made, or if it is a process or method, how it is to be worked. 5
 "Ambiguity is directed to the issue whether the invention is sufficiently
 "described and ascertained so as to enable the public to understand the scope
 "of the monopoly granted by the Letters Patent". That appears to me to be
 a useful statement, when one is embarking upon the matters and the evidence
 to which our attention has been directed. 10

I am going to examine the Specification, bearing in mind those two points of insufficiency and ambiguity as stated by the learned Judge; bearing in mind also that insufficiency has been laid down in many of the cases to be an issue of fact. It is important to examine the Specification and the Claims with some care. It is a short Specification; and, therefore, not too long to enter upon in detail. It declares that: "The invention relates to an improved
 "ash receptacle for smokers' use which, without the use of movable parts,
 "will retain the smoke rising from a cigarette end, or the like thrown into it".
 It points out that the "ordinary open ash-tray has two disadvantages". Ashes if uncovered may be blown about, and as we all know, from a cigarette end put while still alight upon an ordinary open ash-tray, there can be a considerable amount of smoke still rising, to the inconvenience of those who are in its neighbourhood. The Specification goes on to refer to what are the characteristics of the known receptacles: "In some cases deflecting surfaces
 "have been provided extending upwards within a funnel-shaped opening of
 "the ash-tray to cause the ashes or cigarette ends thrown in to fall to one side". 25
 I have read that sentence because I think it is important, in view of what comes later. "Deflecting surfaces have been provided extending upwards
 "within a funnel". The Patentee records the fact that those deflecting surfaces are, in the known method of making use of them, extended upwards
 within the funnel, which is a part of his own Patent. The Specification goes on:
 "Careful experiment has shown that the smoke given off by a cigarette end
 "lying in a closed container can be prevented from escaping into the sur-
 "rounding air, without the use of any movable parts, if the receptacle is suitably
 "shaped and dimensioned. The ash receptacle, according to the present inven- 35
 "tion consists essentially in a closed container into which extends an inlet
 "shaft of substantially constant cross section, the sides of which with the sides
 "of the container form a trapped space completely closed above, whilst wholly
 "beneath the shaft is provided a deflecting member which deflects everything
 "that is thrown into the container away from and to one side of the lower
 "mouth of the shaft". It will be observed that this ash receptacle differs 40
 from other known receptacles because it says this: "whilst wholly beneath the
 "shaft is provided a deflecting member". It is in antithesis to what had
 previously been said, that the deflecting member extended upwards within
 the funnel. That is distinct and different from what was recorded as being
 one of the characteristics of known ash receptacles. The Specification pro- 45
 ceeds: "the dimensions of the shaft and of the deflecting member, relatively
 "to one another and to the sides of the closed container, being so selected that
 "the smoke rising from objects thrown into the container is collected entirely
 "in the enclosed space, and upon cooling is again thrown down, without how- 50
 "ever during its movement being able to pass the lower mouth of the shaft".

No-Fume Ld. v. Frank Pitchford & Co., Ld.

Then the relative dimensions of the shaft are given. Then an illustration is referred to. It is noted that by means of this provision of the trapping space round the shaft, there is a space into which the smoke can pass, but not escape; and the operation of cooling is carried on in this trapped space, so that by
 5 the mere pressure of the contents of the trapped space there is no forcing of the smoke to come out through the shaft. At line 87 the Specification continues: "What is thrown into the receptacle is collected in a part of the
 "latter which lies below the trapped space surrounding the shaft 3. The
 "smoke rising from a cigarette end, for example, lying here rises naturally
 10 "vertically and is collected in the trapped space and cannot pass through the
 "shaft 3 into the room". It appears to me that in addition to the statement that the deflecting member is not to rise upwards within the funnel, it is made quite plain that the deflecting member is to be immediately below the shaft, and is to operate by throwing the cigarette end to the side of the chamber,
 15 with the result that there is a spread of the smoke from the cigarette end rising naturally vertically.

Now comes another passage which is much commented upon: "The size
 "of the space surrounding the shaft 3 is so chosen that the cooling or con-
 "densation of the collected smoke is assured". It is said that the size of
 20 the space, therefore, is indicated, and indicated only by the result. That appears, perhaps, to be too severe a criticism; because what has to be provided is a trapped space such that the cigarette lying in the container may have the opportunity of sending its smoke naturally vertically up to the top of the trapping space; and in that trapping space there may be a provision for the
 25 cooling of the smoke. Then the construction of the ash receptacle is referred to. It is explained that it need not be precisely as illustrated in the drawing. It can, for example, have an inlet which is eccentric to the receptacle; and the deflecting member can be formed by any suitably shaped deflecting surface.

Then we come to the Claim which is for: "An ash receptacle which, without
 30 "the use of movable parts, retains the smoke rising from objects thrown
 "into it". It is important, I think, to bear in mind that the Patentee is talking of an ash receptacle. That means, that within the limits of the ordinary receptacle, it would be marked by what I may call an ordinary size. It would neither be Brobdingnagian nor would it be Lilliputian. It is to be what might
 35 be called a conventional ash receptacle. It consists of a closed container, into which extends a shaft of substantially constant cross section, the sides of which with the sides of the receptacle "form a trapped space closed above"; and then once more it is repeated—"whilst wholly beneath the shaft is provided a deflecting member". Some suggestion was made that the words
 40 "wholly beneath" are enigmatical; but I think it is explained when one sees that it is in antithesis to a member which extends upwards within the funnel. This deflecting member throws, and is intended to throw, the objects which are put into the receptacle "wholly to one side of the lower mouth of the shaft". That being so, it would give them an opportunity of allowing the
 45 smoke to pass naturally vertically up into the trapped space. Then the Claim goes on: "The dimensions of the shaft and of the deflecting member being
 "so chosen relatively to one another and to the sides of the closed container,
 "that the smoke rising from objects thrown into the container is collected
 "entirely in the trapped space, and after cooling is thrown down again". It

No-Fume Ld. v. Frank Pitchford & Co., Ld.

is quite true that the dimensions are not stated, either relatively to the shaft, or by any other measurement. They are such as enable the deflecting member to throw the cigarette end to one side, whence the smoke can rise into the trapped space, and in that trapped space the cooling system is to prevail.

It is claimed that that is so vague that there is not sufficient 5
indication by the Patentee of what is his Patent, no sufficient indication of
what the size is to be; and it is only to be discovered by the result which is
aimed at. The learned Judge felt that criticism; and he gave effect to it.
He says this: "It is to be observed that no dimensions are given,
" but the reader is directed to select the dimensions by reference to the result. 10
" When he has selected his dimensions, he makes his container in accordance
" with them. If, on trial, the smoke escapes from the container, his selection
" is at fault, and he has made a container which is not within the description
" and he has not infringed the patent. If the smoke does not escape, then
" he has selected something which falls within the description, and he has 15
" infringed the patent. The only dimension condescended upon in the
" specification is contained in the next few lines; that is, that the proportion
" of the internal diameter to the depth of the shaft should not exceed two to
" three, if most satisfactory results are to be obtained; but the specification is 20
" silent as to any other dimensions which are stated to be characteristic of the
" invention, namely, the relative dimensions of the shaft and of the deflecting
" member, and of both those parts to the sides of the container". At one
time I felt the weight of that criticism very strongly. The Judge proceeds
to say that the workman would not be able to ascertain without difficulty,
and before an actual test of the article, "what precise shape and what 25
" precise relative dimensions are essential to achieve the invention with which
" the Specification is concerned". Therefore, he held that, on the ground
of insufficiency and on the ground of ambiguity, the Patent was invalid.

I have read the Specification and the Claims, and I have come to the con-
clusion that it ought not to be held invalid on the ground of insufficiency, or on 30
the ground of ambiguity. It appears to me that, if a just and fair interpreta-
tion is given to the description, and one bears in mind throughout that you
are constructing an ash receptacle for smokers' use, there is a sufficient explana-
tion of what the dimensions are to be. It is not an objection that the dimen-
sions should be selected by reference to the result, as one sees when one turns 35
to the cases. It seems to me that the proportions can be ascer-
tained without the exercise of any new inventive faculty, if the
directions laid down are followed; because the purpose of the invention
is to construct a space for cooling smoke, and yet that is to be done within
the limits of what might be called the conventional ash receptacle. It appears 40
to me that the proportions need not be exactly laid down by the description,
according to the inches of a foot-rule, if there is a field in which the propor-
tions may vary, and yet in which success may be achieved and ensured.

I turn now to the cases for the purpose of considering whether or not, in
the propositions or rules which I have stated and intend to follow, I have in 45
any way misapplied the law applicable to the case.

Let me start with the case of *Otto v. Linford*, (46 L.T. (N.S.), page 35). The
head-note, which I think is in accordance with the Judgments, says: "The
" description, in a specification, of a machine is sufficient, if it tells the maker
" and user, without requiring him to use an inventive faculty, how to make 50

No-Fume Ltd. v. Frank Pitchford & Co., Ltd.

“and use the machine, although parts of it, without which it would be unwork-
 “able, have been omitted from the specification”. Lord Justice *Holker*, to
 whose knowledge of patent law a tribute was paid by his colleague, then Lord
 Justice *Brett*, says this, on page 45: “I think you are told that you must have
 5 “a substantial amount of air, because you are told that the particles of the
 “combustible material will penetrate into this layer, so to speak, of air and be
 “surrounded by it. And then again, if you refer to the drawings, as I think
 “you are entitled to, you see the sort of proportion which the inventor appar-
 “ently contemplated. I do not mean to say that he made these drawings for
 10 “the express purpose of showing the quantity of air which it was necessary
 “to introduce. I do not think he did; but he makes drawings for the purpose
 “of showing his machine, and showing how he uses it”. That same observa-
 tion is applicable here. There is a strong and valuable comment to be made, if
 you treat the drawings as part of the Specification and indicative of what the
 15 invention of the patentee is directed to. Lord Justice *Holker* goes on: “So
 “that this is not a case where the proportions are essential. Therefore, taking
 “the other facts, and bearing in mind that specific proportions are not essential,
 “I think the difficulty which that point which was raised by Mr. *Millar* presented
 “to my mind can be got rid of”. I am not overlooking the fact that Mr. *Gill*
 20 in his evidence told us that, if that container was made of too ample proportions,
 it probably would not work. But once more I come back to this—that it is an
 ash receptacle of the nature and quality indicated both in the specification and
 the drawings.

The next case to which I want to refer is *Leonhardt & Co. v. Kallé & Co.*
 25 ((1895), 12 R.P.C. 103). That is a decision of Sir *Robert Romer*, and he was
 dealing with this question of proportions. At page 117 he said this: “The
 “next head of Objection 1 which I ought to deal with is this: that the Specifica-
 “tion is objectionable, because ‘the proportions in which the various alternative
 “‘oxidisable substances are to be used’ are not shown. Now, what has the
 30 “patentee done? He has taken numerous examples and given details with
 “regard to numerous oxidisable substances, how they are to be used, in what
 “proportions, and with every necessary information. It is said as an objection
 “to those examples that they are not based on any common, definite, or fixed
 “chemical theory with respect to the proportion of oxidisable substance
 35 “used. It was suggested that the patentee ought to have had a theory that
 “if you took different oxidisable substances, a certain proportion must always
 “appear of what I may call oxidisable effect. I have no doubt if the patentee
 “tried to do anything of the kind he would probably have failed. He was not
 “bound to apply a theory. He was bound to give the best result. If he had
 40 “formed a theory, the objection would have been taken against the theory.
 “He has done what, in my opinion, is right. He has shown how to obtain the
 “best result from the different oxidisable substances in fact and not in theory”.

I pass now to the case of the *British Dynamite Co. v. Krebs* ((1896) 13
 R.P.C. 190). That is a case in the House of Lords. At page 192 the Lord Chan-
 45 cellor, Lord *Cairns*, be it remembered, said this: “But then it is said there is
 “no sufficient description of the manner in which the invention is to be per-
 “formed. You are not told, it is said, what quantity of the liquid is to be
 “absorbed. You are not told whether the various porous substances will absorb
 “equal or unequal quantities of the liquid. You are not told what quantity is
 50 “best to use, either of the liquid or of the absorbing substance. You are not told

No-Fume Ltd. v. Frank Pitchford & Co., Ltd.

‘to what extent the pulverisation is to be carried. With regard to these objections, I should be disposed to say, even were there no evidence in the case, that they do not appear to me to be objections the force of which I should be prepared to admit’; and then he deals with it. Then on page 198 Lord *Hatherley* says this: “No doubt a trial, or perhaps more than one trial, might be necessary to ascertain how much nitro-glycerine would be taken up by any given material; but this would not be experiment for discovery; it would be only working by a rule ascertained and defined by the patentee, and adjusting that general rule to the particular substances employed”. I am not overlooking the fact that those two cases to which I have referred may be spoken of as process claims; but really the same principle to my mind applies. If you know what the purpose of the device is, namely, that you are to have a deflecting member to throw the cigarette to one side, if you know that you are to have the smoke ascending vertically inside the trapping chamber for the purpose of being cooled, if you know the sort of thing which is indicated in the picture, it appears to me that it would be probably unwise and also unnecessary on the part of the patentee to delimit it so that the invention could only apply to a chamber which was not to be bigger than say 3½ inches in height or two inches wide. You have got the rule or purpose for which you are to make the chamber. If you make an alteration, and find out what the result is, you are, as Lord *Hatherley* says, working under the rule “ascertained and defined by the patentee.”

I then come to the case of *Watson Laidlaw & Co., Ltd. v. Pott, Cassels and Williamson*, ((1911), 28 R.P.C. 565). Lord *Kinnear* deals with the matter at page 578, his judgment being one which was approved in a later case by the House of Lords: “It comes back therefore, in my opinion, really to the original question: Has he done enough to show to a well-informed and properly skilled workman what the thing patented is which he is required to construct? Agreeing with the learned judges below, I am of opinion that he has and that the Judgment ought, therefore, to be affirmed”. That Judgment and Lord *Shaw*’s Judgment were approved in the case next referred to. Lord *Shaw* says on page 581: “It is permissible to state the real invention in language of such generality as is essential to preserve it, and to prevent those rivals from invading the rights of the patentee”.

Finally, on this point, I come to the case of the *British Thomson-Houston Company, Limited v. Corona Lamp Works, Limited*, ((1922), 39 R.P.C. 49), which is of great importance. There are certain passages to which I must, as briefly as I can, refer. At page 76 Lord *Finlay* says this: “I pass to the point upon which both Courts decided against the validity of the patent which is stated in the 5th paragraph of the Particulars. That paragraph charges want of sufficient description and directions. The only point which was pressed is the allegation, towards the end of paragraph 5, that the specification is ambiguous and misleading inasmuch as it does not give any sufficient definition of the expressions ‘large diameter’ and ‘larger diameter’”. He rejects that and says this on page 77: “The fact that the directions are admitted to be sufficient to enable any competent workman to make a lamp according to the patent seems to me to be inconsistent with the contention that the ambit of the invention is not sufficiently defined, inasmuch as, in order to carry out the invention by making a lamp, the workman must be able to attach a meaning to the words ‘large diameter’ occurring in the specification. But, apart from this consideration, it appears to me that there is no ambiguity

No-Fume Ltd. v. Frank Pitchford & Co., Ltd.

“ about the words ”. Then at page 78 he says: “ To require that the particular
 “ dimensions should be given in the present case seems to me to be to impose
 “ a new and unnecessary burden upon the inventor. In practice its only useful-
 “ ness would be to those who might desire to avail themselves of the substance
 5 “ of the invention while avoiding liability to proceedings for infringement ”.
 Lord *Shaw*, on page 89 says this: “ But the reply to such a criticism is that that
 “ is not how practical men work. They work to achieve success, and if, adopting
 “ the broad lines laid down in a specification, they do not find any real difficulty
 “ in achieving success, this may not conclude the matter, but it goes far to show
 10 “ that the vagueness of the specification has not misled them—practical people
 “ who are not seeking for failure but for success—has not caused the invention
 “ to fail to reach their mind, but has, on the contrary, for all practical purposes,
 “ guided them, and that without difficulty, towards the success which prior to
 “ that no experiment nor invention had achieved ”. Once more, at page 92,
 15 he dwells upon the view which ought to be the test, namely, that persons are
 “ honestly looking not for failure, but for success ”.

I have, therefore, come to the conclusion that, applying those canons of
 construction and those rules, approaching the Specification and the Claims in
 the spirit which Lord *Shaw* indicates is the right spirit, there is a sufficient
 20 explanation of the invention, and also a sufficient indication of what is the area
 which the Patentee asks for as his monopoly.

One word with regard to the drawings. Mr. *Gill* said this on the First Day,
 on page 39. He is asked: “ Is he not there telling you that you have got to
 “ experiment with these dimensions until you find out how that result is to be
 25 “ obtained? ” (A.) “ No, I do not think so. When you have such a clear
 “ indication as the drawing gives you, you can see all you want to know. You
 “ can see that the deflector must throw the cigarette end clear away from the
 “ shaft and you can see that there must be a clear space between the shaft and
 “ the wall, and more than that you do not want ”. I will not repeat what I
 30 have already said as to the importance of the cigarette end being able to
 throw its smoke straight away vertically up into the shaft.

For these reasons I have come to the conclusion that the Patent on those
 lines is valid.

Now comes another question: Has there been an anticipation by any of the
 35 cited documents? The one that was most pressed upon us was that of *Sayers*,
 which is No. 10221. It was a design for an ink-pot; but it was said that a person
 who was minded to make this sort of ash receptacle, could have made use of
 that ink-pot for the purposes of designing the ash receptacle; and the doctrine
 of analogous user was referred to and adduced. On that I desire to refer to two
 40 cases. The first is *Flour Oxidising Company, Ltd. v. Carr & Company, Ltd.*
 ((1908), 25 R.P.C. 438) where (at page 457) there are certain observations made
 by Lord *Parker*, then Mr. Justice *Parker*, which I should like to cite: “ In
 “ considering, under these circumstances, whether either *Frichot's* Specification
 “ or *Hogarth's* Specification is an anticipation of *Andrews' invention* it is
 45 “ important to bear in mind the difference between anticipation by prior pub-
 “ lication and anticipation by prior user. If anyone had been proved to have
 “ publicly worked *Frichot's* Figure 5, with a sparking discharge, so as to pro-
 “ duce oxide of nitrogen with a minimum of ozone, and had bleached flour by
 “ exposure to the gaseous medium so obtained, there would, in my opinion,
 50 “ have been a clear prior user of *Andrews' invention*, and the patent protecting

No-Fume Ld. v. Frank Pitchford & Co., Ld.

“such invention would have been void. And, similarly, if anyone had been proved to have publicly used *Hogarth's* Figure 3 with a sparking discharge between plates with serrated edges so as to secure a uniform distribution of sparks, and had bleached flour by passing it through such discharge, this also might perhaps, with some plausibility, have been insisted on as a prior user avoiding *Andrews' patent*. But where the question is solely a question of prior publication, it is not, in my opinion, enough to prove that an apparatus described in an earlier Specification could have been used to produce this or that result, it must also be shown that the Specification contains clear and unmistakable directions so to use it”.

The last case to which I need refer is *Pope Appliance Corporation v. Spanish River Pulp and Paper Mills Limited* ((1929), 46 R.P.C. 23). At page 56 Lord *Dunedin* says this: “Analogous user is what its name denotes, something which has to do with user”. Then he says, applying and approving of a passage from a Judgment of Mr. Justice *Blackburn*: “In every case arises a question of fact whether the contrivance before in use was so similar to that which the patentee claims that there is no invention in the difference. The contrivance, be it observed, must be a contrivance in use, not one merely described”.

Applying those rules to the present facts, it appears to me that *Sayers' Patent* could not be adduced by way of analogous user for the purpose of saying that the Plaintiffs' Patent was invalid. With regard to the other Specifications cited, they do not appear to give any indications which, if followed out, would have led to the inventive step of the Patentee, *Otto Reich*, being discovered.

On all these grounds I come, therefore, to the conclusion that the Patent is valid, and that the Appeal on this question must be allowed; and that the Appeal against revocation of the Patent must be allowed.

Now I come to a different, and a more difficult question. The Plaintiffs have alleged that the Defendants have infringed their Patent. Unfortunately, we have not the advantage of any opinion expressed by the learned Judge upon this point, because it was not necessary for him to deal with it. What is the infringement? The merit, the purpose, of the invention is that smoke shall not pass out from the container through the orifice. The Defendants allege that they have made an offer by their advertisement of a novelty which is said to have the qualities of “No smoke! No smell! No ashes! All ends in the barrel”. We have the evidence as to what happens in the particular type indicated in this advertisement. We have a clear statement that there was smoke, and that the design of the Defendants was imperfect and inadequate to secure the promised, or what I may call the puffing result, that there should be no smoke. I find it difficult to hold that there was infringement by the Defendants. The construction which they follow appears to be one which is inadequate for the purpose of giving sufficient cooling space to dispose of the smoke. It appears in fact that the design does not work in the sense of putting an end to all smoke; and it is ineffective for the purpose of achieving what is successfully achieved by the Plaintiffs' Patent. It appears to me that, although there is an offer by advertisement, there does not purport to be, and there was no proof of, actual sales of this design. But I prefer to base my view on the question of infringement on the point that the Defendants' design is inadequate to prevent smoke escaping; and that it does not affect, or come really into competition with, the design of the Plaintiffs. It appears to

No-Fume Ld. v. Frank Pitchford & Co., Ld.

me that there is no sufficient proof of infringement by the Defendants. That will have to be taken into account when we are considering what the exact Order ought to be, after my learned Brothers have delivered their Judgments.

Romer L.J.: I have come to the same conclusion. It is essential to the
 5 validity of a patent that the complete specification should sufficiently and
 fairly describe and ascertain the nature of the invention and the manner in
 which the invention is to be performed: in other words, that the patentee
 should disclose his invention sufficiently to enable those who are skilled in the
 relevant art to utilise the invention after the patentee's monopoly has come to
 10 an end. Such disclosure is, indeed, the consideration that the patentee gives
 for the grant to him of a monopoly during the period that the patent would
 run. Another essential to the validity of the patent is that the complete speci-
 fication should sufficiently and clearly ascertain the scope of the monopoly
 claimed. The reason for that is in order that those who are engaged in the
 15 art may know how far they can go without running the risk of having an
 action for infringement of the patent started against them by the patentee.
 If the complete specification does not clearly indicate the ambit of the inven-
 tion, it will redound, to use the words of Section 6 of the Statute of Monopolies,
 "to the hurt of trade, and be generally inconvenient". One might put it a
 20 great deal more strongly—the patent will be a public nuisance, hindering and
 embarrassing those persons engaged in the particular art, from carrying on
 their legitimate trade or business.

Let me deal with the question of sufficiency first. Be it observed from the
 very words I have used, that the Patentee fulfils his duty if in his complete
 25 specification he describes and ascertains the nature of the invention, and the
 manner in which the invention is to be performed, sufficiently and fairly. It
 is not necessary that he should describe in his specification the manner in
 which the invention is to be performed, with that wealth of detail with which
 the specification of the manufacturer of something is usually put before the
 30 workman who is engaged to manufacture it. Specifications very frequently
 contain mistakes; they also have omissions. But if a man skilled in the art
 can easily rectify the mistakes and can readily supply the omissions, the
 patent will not be held to be invalid. The test to be applied for the purpose
 of ascertaining whether a man skilled in the art can readily correct the mistakes
 35 or readily supply the omissions, has been stated to be this: Can he rectify
 the mistakes and supply the omissions without the exercise of any inventive
 faculty? If he can, then the description of the specification is sufficient. If
 he cannot, the patent will be void for insufficiency.

That principle was laid down—I do not know whether for the first time or
 40 not in a reported case—in the case of *The King v. Arkwright*, reported in the first
 volume of Webster's Patent Cases, p. 64. There Mr. Justice Buller, in summing
 up to the Jury, said this: "It has been truly said by the counsel, that if the
 "specification be such that mechanical men of common understanding can
 "comprehend it, to make a machine by it, it is sufficient; but then it must
 45 "be such that the mechanics may be able to make the machine by following
 "the directions of the specification, without any new inventions or additions
 "of their own". It is plain, I think, that by the word "additions" the
 learned Judge meant inventive additions. That principle has been applied in
 numerous cases, to which Mr. *Whitehead* called our attention in his opening;

No-Fume Ld. v. Frank Pitchford & Co., Ld.

and to which the *Master of the Rolls* has already referred. In those circumstances, I should only desire to refer to a short passage in the Judgment of Sir *George Jessel* in *Otto v. Linford*, (46 Law Times N.S. 35). That was a case relating to the *Otto* gas engine; and it had been alleged, among other things, that the patent was void for insufficiency, inasmuch as the specification did not show the proportions in which the air was to be put in as regards the combustible mixture. Sir *George Jessel* said this, on page 41: "The first thing to be remembered, in specifications of patents, is that they are addressed to those who know something about the matter. A specification for improvements in gas motor engines is addressed to gas-motor engine-makers and workers, not to the public outside. Consequently you do not require the same amount of minute information that you would in the case of a totally new invention, applicable to a totally new kind of manufacture. In this case the inventor says this: 'I am going to turn that which was a sudden explosion of gas into a gradual explosion of gas, and I am going to do that by the introduction of a cushion of air in one place between the piston and the combustible mixture'. If a man is left without any more information he asks: 'How much air am I to let in?' He lets in a little air, and he finds that the thing explodes as before; and he lets in some more, and he finds directly, on the mere regulation of his stop-cock, how much is required; and he finds very soon that he has let in enough, and now there is a gradual expansion, and no longer a sudden and explosive expansion. It does not appear to me that that requires invention. It requires a little care and watching, and that is all".

That being the principle to be applied, we turn to the Specification of the Patent in suit. I am not going to read it again; but the Patentee tells us that he has discovered that, if an ash-tray be made so that it consists of "a closed container, into which extends an inlet shaft of substantially constant cross section, the sides of which, with the sides of the container form a trapped space completely closed above, whilst wholly beneath the shaft is provided a deflecting member which deflects everything that is thrown into the container away from and to one side of the lower mouth of the shaft", the smoke of a cigarette thrown into the shaft will not come out through the shaft but will be retained in the receptacle: subject, however, to this, that you must not make the container too large or too small, or the other integers he has mentioned too large or too small. You will not get the result of the smoke being contained, if you do. But once given the fact that, if the thing be made in the way mentioned, the desired result will be obtained if the various integers bear one to another the proper relative proportion, it requires no invention or inventive study further to discover within what limits those proportions should lie. That can be done easily enough by a series of experiments similar to the experiment Sir *George Jessel* referred to as necessarily being made by a workman who wanted to find, in the case of the *Otto* gas-engine, how much air he should let in to produce the result that the patentee said would be produced.

The Specification, as has been pointed out by the *Master of the Rolls*, expressly says this: "The dimensions of the shaft and of the deflecting member, relatively to one another and to the sides of the closed container, being so selected that the smoke rising from objects thrown into the container is collected entirely in the enclosed space, and upon cooling is again thrown down without, however, during its movement being able to pass the lower mouth of

No-Fume Ld. v. Frank Pitchford & Co., Ld.

“the shaft”. In other words, the Patentee does not tell the world within what limits the relative proportions of the integers he has mentioned must be kept to produce the desired result. If, however, a workman skilled in the art can by trial and error readily discover for himself what the proportions should be
 5 in order to give the desired result, then, inasmuch as I have already pointed out, that to discover those proportions requires the exercise of no inventive faculty at all, the Patentee has complied with his obligation.

It is further to be observed in this case that the Patentee does show a drawing illustrating, as he says, one construction of the ash-tray by way of
 10 example. So the workman has not only the common knowledge of his trade to help him, but he has also the example shown by the figure attached by the Patentee to the specification. Further, Mr. *Gill* stated in his evidence that he found no difficulty whatsoever, by following the directions contained in the Specification, in making an ash-tray which had the desired result. On
 15 page 7 of the First Day of the evidence, he was asked this. Reading from the Defence, this question is put to him: “It is impossible to discover from “the specification what relative dimensions of the shaft, deflecting member
 “and closed container, will satisfy the requirements of the invention”. That is from the Particulars of Objection. He was asked: “Do you find any such
 20 “impossibility? (A.) No; I find no difficulty, following the Specification, in “arriving at suitable dimensions, and nothing which I have done in attempting “to carry out the invention has led me to any such difficulty as is suggested in “this paragraph”. It is established by the authorities that the question of sufficiency or non-sufficiency is a question of fact. That is the only evidence that
 25 has been given in this case upon this question. For that reason, and for the other reasons which I have mentioned, I am of opinion that this Patent is not void for want of sufficiency.

The question of ambiguity can be decided on much the same lines. The only Claim in the Specification is this: “An ash receptacle which, without the use
 30 “of moveable parts, retains the smoke rising from objects thrown into it, “characterised by the fact that it consists of a closed container into which “extends a shaft of substantially constant cross section, the sides of which, “with the sides of the receptacle, form a trapped space closed above, whilst “wholly beneath the shaft is provided a deflecting member, which deflects
 35 “objects thrown in wholly to one side of the lower mouth of the shaft”. Pausing there, it has been suggested that there is ambiguity in the words “substantially constant cross section”. I do not think so. Anybody knows what that means. Then it is suggested there is ambiguity in these words: “whilst wholly beneath the shaft is provided a deflecting member”. Again
 40 I think there is no ambiguity in that. It is plain what it means. It is to be beneath in the sense that it does not project into the shaft; but, further, it must be vertically beneath, otherwise the deflecting member could not deflect objects thrown in wholly to one side. If you placed the deflecting member away from the shaft to the side of the receptacle, anything thrown into the
 45 shaft would not fall on the deflecting member; and that part of the description would not be satisfied. Then a more serious objection is suggested. The Claim goes on: “The dimensions of the shaft and of the deflecting member “being so chosen relatively to one another and to the sides of the closed
 “container, that the smoke rising from objects thrown into the container is
 50 “collected entirely in the trapped space, and after cooling is thrown down

No-Fume Ltd. v. Frank Pitchford & Co., Ltd.

“again without being able during this movement to pass the lower mouth of the shaft”. It is said that, having regard to those words, a man skilled in the art would not be able to know how far he could go without finding himself infringing the monopoly. For the reasons I have already given, it seems to me quite plain that a workman skilled in the art would have no difficulty whatsoever, by making a few experiments, in seeing what he could do without infringing the Patent. Indeed, it is to be observed, for the reasons that the *Master of the Rolls* has given, some of which I will deal with presently, that the Defendants have succeeded, apparently without any difficulty, in finding how far they can go without infringing the monopoly. I cannot, therefore, hold that this Claim is void for ambiguity.

The next question which falls to be decided is whether the plea of anticipation and want of subject-matter can prevail. It is wholly unnecessary to refer to any of the prior documents, with the exception, perhaps, of one of 1911, which is called *Sayers’* Specification. That was a Specification describing and claiming an ink-pot. No question of analogous user can arise; because this ink-pot never was used. Therefore, the use of this thing as described by *Sayers* as an ash-tray can never be described as analogous to its use as an ink-pot. The fact is, if you want to use this ink-pot as an ash-tray, to get the results described by the Patentee, you want to avoid the smoke which is put in by means of the cigarette into the container, coming up through the shaft. In the case of the ink-pot, it is eminently desirable that a portion of the ink that you put in should come up the shaft, otherwise it would be quite useless as an ink-pot. Further, it is to be observed that Mr. *Sayers* does not suggest in his Specification that his ink-pot can be used as an ash-tray. Still less does he say that, if it be used as an ash-tray, it would possess any advantage over any other ash-tray; least of all does he suggest in his Specification that, if it is used as an ash-tray, it will have the advantages which have been disclosed by the Patentee here as being possessed by an ash-tray made in the manner that he describes. In my opinion the defences of anticipation and want of subject-matter fail. In those circumstances, I think that the learned Judge was not justified in making an Order holding the Patent to be invalid, and making an Order for its revocation; and, so far, I think the Appeal is successful.

Then we come to the question of infringement. The alleged infringing article is shown in Exhibit D.1. In my opinion, plainly it is characterised by the fact that it consists of a closed container into which extends a shaft, and, I think, of substantially constant cross-section, the sides of which, with the sides of the receptacle, form a trapped space closed above, whilst wholly beneath the shaft is provided a deflecting member which deflects objects thrown in wholly to one side of the lower mouth of the shaft. It is true that a portion of this deflecting member extends above the entrance of the shaft, but not in the entrance to the shaft. Where it does so extend outside the shaft to a higher point than the horizontal plane of the mouth of the shaft, it does not act in any way as a deflecting member. The deflecting member is situated wholly below the shaft. It is therefore such an ash-tray as is described in Claim 1 if the Claim ended with the words “the lower mouth of the shaft”. But the Plaintiff has defined the ambit of his invention by the result achieved by a receptacle made in the manner he describes. The result

No-Fume Ld. v. Frank Pitchford & Co., Ld.

is to be that the smoke arising from the objects thrown into the container is collected entirely in the trapped space. That does not mean that not the slightest little wisp of smoke may not occasionally arise when a cigarette is put in, but substantially it must be entirely collected in the trapped space.

5 Experiments have been performed by the Plaintiffs in the presence of the Defendants on, among others, this alleged infringing article, and those experiments disclosed—it is agreed by all parties—that, so far from the Defendants' article entirely trapping the smoke in the container after the cigarette ends had been thrown into it, it smoked moderately up to one minute and there-
10 after smoked slightly to the end of three minutes. In those circumstances it appears to me, as I said just now, that the Defendants have been able to ascertain by trial and error how they can manufacture an ash-tray containing the features to which the Plaintiff has referred without producing the result predicated by the Plaintiff of his patented receptacle. For these reasons, it
15 appears to me that the Plaintiffs have not shown that the Defendants have infringed.

Our attention was properly called to certain advertisements in which the Defendants are offering for sale things made in accordance with or corresponding to what is shown on this Exhibit D.1. They state in their advertisements that
20 no smoke will escape from their ash-trays so offered for sale. Experiment has shown that it will, and I hope, in the future, that the Defendants will cease making this misrepresentation to the public, a misrepresentation which, if it be continued as from the date of the experiments to which I have referred, becomes a fraudulent misrepresentation. But I cannot see that the statement
25 in this advertisement is one of which the Plaintiffs are entitled to complain. The Defendants are not purporting to pass off their goods as being the goods of the Plaintiffs. What they are saying is that these goods of theirs possess the attributes of the goods described by the Patentee in his Specification. That is not a matter of which, as it seems to me, the Plaintiffs are entitled
30 to complain at law.

In these circumstances, I think, so far as the action has sought to fix the Defendants with infringement of the patent, it fails, and the appeal must be dismissed on that point.

35 **Maugham L.J.:** After the elaborate Judgments that my brethren have delivered, it will not be necessary for me to go into all the matters which they have discussed. There are, however, some questions in this case which I think are of considerable importance: and on them it may be that I should be acting properly in expressing my own opinion.

40 With regard to the question of validity, there are two matters on which I want to comment. The validity is attacked mainly on the ground of insufficiency, a phrase which I take as representing Section 25 (2) (h) of the Patents and Designs Act, 1932; and ambiguity, which I take to be a general description of Section 25 (2) (i). The first of these provisions enables a patent to be
45 revoked on the ground that the complete specification does not sufficiently and fairly describe and ascertain the nature of the invention, and the manner in which the invention is to be performed. That is a way of stating that it is essential, as a condition for the grant of the monopoly, that the person to whom the specification is supposed to be addressed should be able to exercise

No-Fume Ld. v. Frank Pitchford & Co., Ld.

the invention without the necessity of further experiment or further discovery. If he cannot, that is to say, if he cannot exercise the alleged invention at all without further experiment or further discovery—and I shall say something with reference to what I mean by that phrase—then the patent is bad. There may be said to be two corollaries to this proposition, which perhaps, if accurately phrased, would be included in the proposition. If a person to whom the specification is addressed, can exercise the invention by strictly carrying out the specification, the specification will *prima facie* not be bad, though further experiments are needed to obtain the best results, provided, of course, that the patentee has given the best means known to him for carrying out the invention. I do not think it is necessary for me to cite any authorities in favour of that proposition. It is one which is implicitly admitted in a number of cases. Invention in these days is a gradual process; and it may take years before the best results of a particular invention have been achieved. Few patents in the early stages of any particular new art would be good if it were necessary that the patentee should describe the best results to be obtained. Accordingly, that corollary is well-established.

The other corollary which I may mention is this. If the person to whom the specification is addressed can exercise the invention by strictly carrying out the specification, the specification is not bad for insufficiency merely because the patentee has not defined all the proportions, or all the dimensions, or all the temperatures, or all the materials which would give a similar or a like result. That seems to me a matter of some moment. It has been the law in this country from a very early date. For example, there is an interesting case in the first volume of *Webster*, relating to a miner's fuse. It is the case of *Bickford and Others v. Skeues*, in 1 *Webster*, page 214, a decision just upon one hundred years old. There it was alleged that the patent was bad for the reason that the specification had specified the use, in constructing the fuse, "of gunpowder, or other proper combustible material"; and it was said that you could not ascertain that without experiment. It was proved that detonating powder might also be used, and would answer the description as proper combustible material. There having been a Rule to show cause why a non-suit should not be entered on the point of law arising on the specification, the matter appears to have been elaborately argued, and finally *Lord Denman*, Chief Justice, dealt with it and came to the conclusion that it was in no way a fatal objection to the specification, the jury having considered it and having come to the conclusion that there was a sufficient statement of the nature of the invention.

Another case which perhaps is even clearer, is the case of the *Patent Type Founding Company v. Rogers*, a decision of *Vice-Chancellor Wood* (afterwards Lord Hatherley) (1 *Johnson*, 381). There are a number of more recent cases. I should add that in all cases you have the further condition that the patentee is bound to give the best information known to him at the date of the patent. Accordingly, in my opinion, in the present case the Patentee having in his Specification shown how the Patent can be exercised in every particular by following his description, taking the illustration which he has given, and having, as I hold, described a useful invention, the Patent cannot properly be attacked on the ground of insufficiency, merely because it is said there are other ways of carrying out the invention, as to which he has not been sufficiently precise.

No-Fume Id. v. Frank Pitchford & Co., Ltd.

I pass now to the question of what may be described as ambiguity, raised upon Section 25 (2) (i). Here I will observe that I am only concerned with ambiguity as to the ambit of the claim raised by the passage in the Specification to which my Brothers have referred, based upon the final words in the Claim, which require that "the dimensions of the shaft and of the deflecting member" should be so chosen "relatively to one another and to the sides of the closed container that the smoke is collected entirely in the trapped space, and after cooling is thrown down again without being able to pass the lower mouth of the shaft". It is perhaps unfortunate that the Patentee in this case has chosen to define his claim by reference to this result as regards the smoke, since this is dependent on the dimensions of the shaft and the deflecting member, dimensions which are to be relative to the size of the container. Fortunately for him, however, he has not left the matter there, because on page 1, lines 41 to 65, he has given an exact description of the nature of the ash receptacle, which he claims to have invented, except as regards the matter of dimensions to which I have referred. Further, and this I think is a very important matter in this particular case, he has given an exact reproduction of his patent receptacle by way of example. He has further stated what he has found to be the most satisfactory result as regards the shape of the shaft; but I do not attach any great importance to that, since the dimensions of the cooling chamber, if one may so describe it, are the matters to which the greater part of the criticism has been directed. On page 2, lines 3 to 17, which the *Master of the Rolls* has read, the Patentee has stated the conditions necessary as regards the size of the cooling chamber; and he has explained his reason for not limiting himself as to its precise shape and size, by pointing out that the exact construction of the receptacle need not be precisely as illustrated in the drawing; and that there may be variations with regard to the position of the inlet shaft, the nature of the deflecting member, and the body of the receptacle itself.

Is the Specification bad for ambiguity, because he has not given more precise indications on this matter? I doubt very much whether any precise rules can be laid down on such a topic. The extraordinary diversity of modern inventions, dealing as they do with every branch of modern industry and science, make it very unwise to lay down hard and fast propositions on such a subject. I may mention here that a distinction has been drawn between cases where a patent is for an invention involving a newly discovered principle, and cases where there is no principle, but only a new process, product or contrivance, or something of the kind. In my opinion in this case there is no newly discovered principle within the meaning of the word as used in this connection. There is no more, I think, than a claim for a new arrangement of a receptacle for the purposes mentioned in the Specification. If authority was wanted on that point, I would refer to the case of the *Edison-Bell Phonograph Corporation v. Smith* (1894) 11 R.P.C. 148 and 389).

Apart from this question of there being in some cases a principle which may alter the position, the only general rule that I know of is that the specification must be as precise as regards the area covered by the invention as the case admits of. In some cases you can precisely define the area in question; in others you cannot or at least you cannot without great difficulty and much elaboration. Our Courts in the latter cases have not thought it right to declare the patent bad because the inventor was unable to give anything more than a

No-Fume Ld. v. Frank Pitchford & Co., Ld.

precise indication of one particular mode of using his invention, with specific materials, temperatures and so forth. No doubt there are passages to be found in the books in which eminent Judges have said that a patentee ought to state distinctly not only what it is he claims, but ought also to describe the limits of his monopoly. If that means that the limits ought to be ascertained, or ought to be capable of being ascertained without the necessity of applying further tests, in my opinion the proposition is too widely stated. There are several cases which my Brothers have cited on this point and the cases I have mentioned on the point of sufficiency are also relevant on the allied point of ambiguity. I will not refer again to the case of *Leonhardt & Co. v. Kalle & Co.*, (1895) 12 R.P.C. 103, but I do want to say one word with reference to the most important case of all, the *British Thomson Houston Company v. Corona Lamp Works, Ld.*, (1922) 39 R.P.C. 49, and for this reason. The learned Judge has referred to that case in his Judgment; and it appears that he carefully considered it. He has distinguished it on the ground that the speeches of the Lords have shown that in their view, though the words might appear vague to an uninstructed reader, the evidence made it clear that an ordinary skilled workman in the particular trade would understand without difficulty what was meant by them. The *Half-Watt Lamp Case*, as it is generally called, was undoubtedly a case in which the patentee defined his invention to a certain extent at least by the result; and, as I understand the learned Judge, he doubts whether that can ever be a proper course. But for the decisions to which my Brothers have referred, I, too, should doubt whether that was a proper course in claiming the limits of your invention. But in my opinion, the decision of the House of Lords in that case, following as it did the decision of the House of Lords in the case of *Watson, Laidlaw & Co. Ld. v. Pott, Cassels & Williamson*, (1911) 28 R.P.C. 565, has established that there is not necessarily any objection to defining your patent by reference to the result of its operation in a suitable case. Both in the case of *Watson, Laidlaw & Co. Ld. v. Potts, Cassels & Williamson* and in the *Half-Watt Lamp Case*, and in the present case, the specification does not leave the matter in the air, but gives the person to whom it is addressed a very fair idea of how he is to carry out the invention, leaving only some matters which are not capable of precise definition to be ascertained or adduced. The matter was no doubt one of great difficulty in the *Half-Watt Lamp Case*, since not only *Sir Charles Sargant* in the Court of First Instance, but all three Judges in the Court of Appeal, came to a contrary conclusion to that which was adopted in the House of Lords. But in my opinion the House of Lords did not rest their decision merely on the ground which, as I have mentioned, Mr. Justice *Luxmoore* seems to have thought was the decisive one, for their Lordships' judgment. I think it emerges from the *Watson, Laidlaw Case* and the *Half-Watt Lamp Case*, that a specification is not bad because, after explaining the nature of the invention and the necessary main conditions for carrying it into effect, the patent leaves out some of the further conditions, for example, dimensions, temperatures, quantities or materials involved, being things which necessarily vary with different applications of the invention, to be determined by actual trial and error. Such trial and error can no doubt be described in popular language as further experiments: but they are not experiments—this has already been pointed out by Lord Justice *Romer*—that involve invention in any true sense. If further inventive steps are necessary the specification would, I think, be bad.

No-Fume Ltd. v. Frank Pitchford & Co., Ltd.

Two provisoes to that proposition may be repeated for clearness. The inventor must disclose the best conditions of which he knows; and, secondly, as I have already said, no experiment involving new invention must be necessary, and everything that is left open must be ascertainable by an ordinary skilled work-
 5 man by mere trial and error. Accordingly, in my opinion the present Specification was not only sufficient, within sub-clause (*h*); but also it does not infringe the provisions of sub-clause (*i*). Not seeing any reason for adding to what my Brothers have said on any other point, it results that in my opinion, differing with respect from the learned Judge, the Specification is sufficient and
 10 unambiguous and the Patent is good.

With regard to the question of anticipation, I do not think it is necessary for me to add anything to what has fallen from Lord Justice *Romer*: but I do want to say a word on the subject of infringement. The main point on which
 15 the Plaintiffs rely is infringement by a sale of the receptacle Exhibit P 7, which was the subject of the second experiment in a series of experiments which were conducted prior to the trial. The result of the experiment has been already stated. Nobody will think it was unfair as a description, either on one side or the other, the description having been dictated by Mr. *Gill* and assented to
 20 by the other side. I feel it necessary to say that I am not myself quite satisfied that the infringing article, P 7, has the constant cross section which is specified as one of the conditions of the Plaintiffs' Patent. That is a point on which I should require an opportunity for further consideration, before making up my mind upon it. I also think the Defendants' receptacle, in the other respects
 25 which have been mentioned, is very near to departing from the limits specified in the Specification. However that may be, I am clearly of opinion that inasmuch as the Patentee in his Claim (which of course operates as a limiting clause) has described the dimensions of his shaft and of his deflecting member, not only relatively to one another but relatively to the sides of the closed container as being such that the smoke of the cigarette is "collected entirely in
 30 "the trapped space, and after cooling is thrown down without being able "to pass the lower mouth of the shaft," it follows that P 7 is not an infringing article. I can understand the view that the amount of smoke which comes out is not from one point of view substantial: but that is not what the Claim says. It says that the smoke is collected *entirely* in the trapped space; and I think
 35 it is perfectly impossible to come to the conclusion that that is the case with regard to P 7, so far as the evidence allows us to judge.

Then there comes the question of the proved offer for sale specified in the Pleadings, and evidenced by the circular letter, the pamphlet and the advertisements which are mentioned in paragraph 2 of the Particulars of Breaches. On
 40 that the Plaintiffs contend that that is also an infringement. As at present advised, I do not think it is. The grant of the Patent conferred on the Patentee the sole right to make, use, exercise and vend the invention: and there have been several cases in which the Courts have considered the meaning of those words. There was a case in which it was said that to expose for sale was not to
 45 vend the invention. That case was considered by this Court in the *British Motor Syndicate Ltd. v. J. Taylor & Sons Ltd.* ((1890) 7 R.P.C. 723). There the Court of Appeal decided that the possession of an infringing article, accompanied by exposure for sale, even without the proof of any actual sale, is

No-Fume Id. v. Frank Pitchford & Co., Ltd.

actionable infringement. But no case has decided, and, as I understand the ground of that decision, no case ought to decide, that a mere paper offer for sale of an article which, if sold without a licence from the patentee, would be an infringement in itself an infringement.

Another question, no doubt, arises as to whether a written offer of a particular article, when the written offer is intended to relate to an article which would be an infringement, is not a threat to infringe; and, therefore, a threat which would justify an injunction, as in the well-known case of *Adair v. Young*, L.R. 12 Ch. D. 13. It may be that the Plaintiffs could have asserted that in this case, and they might have been entitled possibly to an injunction; but as in my opinion, the offer for sale by the Defendants of the Velos "Non-smoker ash barrel" was unaccompanied by proof of exposure for sale, it was not an infringement of the Patent. That is irrespective of the point, on which I respectfully agree with what has fallen from my Brothers, that the evidence shows that the article which was offered for sale, although it is true the Defendants alleged there would be no smoke, was an offer for sale of an article such as P 7 which would smoke to a substantial extent for one minute, and which would go on smoking altogether for three minutes. In the view I take of the matter, if actually sold, it would not have been an infringement of the Plaintiffs' patent.

On these grounds, I agree with all that my Brothers have held with regard both to the issue of validity and to that of infringement.

Whitehead K.C.—May I just say one word on the question of costs, and put your Lordships in possession of a matter which arises more particularly in patent actions? May we assume for a moment that there had been no counterclaim at all for revocation here; but that the Court had come to the conclusion that the Patent was not infringed, but was a valid Patent. It has been quite customary, when the Court has come to a conclusion of that nature, to say, although the defendant shall have the general costs of the action—and, of course, the costs of the issue of infringement, which go with the general costs—that the plaintiff, inasmuch as his patent has been held to be valid, shall have the costs of the issue of validity. That Order has been made over and over again.

Romer L.J.—That means costs so far as they are increased.

Whitehead K.C.—No doubt that is what it means. Curiously enough, when there has been a claim for revocation, although the costs have been increased, and although the Plaintiff has succeeded on the Counter-claim, by the practice of the Taxing Office, following a decision of the House of Lords, that order has been found to lead to a result which probably the Court has never intended. The order results in the plaintiff who has succeeded in rebutting a counter-claim for revocation getting the costs of the counterclaim only, and these having been assessed, lead to no addition to the general costs of the action unless the plaintiff gets a special order that he is to have the costs of the issue of validity.

Lord Hanworth, M.R.—In the last edition of *Terrell* on Patents you will find the matter has been discussed on page 455 and on page 456. There you see what Lord Justice *Bowen* did in a certain case. According to my reading of that, it means this: that with regard to the costs in the Court below, the

No-Fume Ld. v. Frank Pitchford & Co., Ld.

plaintiffs were to have the costs of the issue of validity and the defendants were to have the costs of the issue of infringement. Then if you look at what he says on page 456 it looks as if he meant that the general costs of the action were to be apportioned—accordingly apportioned as between those two Orders on those
5 issues.

Lord Hanworth, M.R. (after the Court had conferred).—We think that the right Order here will be this. With regard to the costs below, the Plaintiffs are to have the costs on the issue of validity, which is an important issue; the Defendants are to have their costs of infringement; and the general costs of
10 the action ought to be apportioned between those two issues as the Master may think right. With regard to the Counter-claim, the Plaintiffs are to have the costs of the Counter-claim.

On the Appeal, it is a little difficult to make out the exact proportion that ought to be given to the Appellants, because it might involve a taxation on
15 both sides in order to ascertain what aliquot portion of their costs the one was to receive and the other was to pay. We think that on the Appeal we will be able to save some expense on taxation by saying that on the Appeal the Appellants, that is the Plaintiffs, will be entitled to have their costs taxed, and be allowed one-third of the costs so taxed.

20 An order was made reversing the order revoking the Patent and a Certificate that the validity of the Patent came in question was granted.

Moritz K.C.—With regard to the Judgment on validity and the question of revocation, the Judgment is against me; and I am instructed to apply to this Court for leave to appeal, if so advised, in respect to those matters.

25 **Lord Hanworth, M.R.**—Yes. There is a divergence of opinion between the two Courts. The matter may be of importance, and, therefore, we give you leave to appeal to the House of Lords.

Whitehead K.C.—If leave is granted to my friend to appeal, I presume your Lordships will give me leave to raise the whole matter?

30 **Lord Hanworth, M.R.**—Yes.