

Counsel for First Party—Asher—Mackintosh.
Agents—Stuart & Cheyne, W.S.

Counsel for Second Party—Innes—Kinnear.
Agents—Macgregor & Ross, S.S.C.

Friday, February 23.

FIRST DIVISION.

[Sheriff of Lanarkshire.

BAILEY v. J. & D. ROBERTON.

Patent—Specification—Nature of Invention—Manner of Performance—Validity.

It is essential to the validity of the final specification of a patent that both the nature of the invention and the manner in which it is to be performed shall be distinctly set forth, and if that is clearly done and nothing is left to conjecture, it is immaterial that the language is inappropriate, or that the description of the nature and the manner is combined in one set of words.

Facts and circumstances in which *held (diss. Lord Deas)* that a specification of a patent was defective, on the ground that the manner of performing the invention was not sufficiently set forth.

Patent—Provisional Specification—Final Specification—Act 15 & 16 Vic. cap. 83—Disconformity.

Held (per Lord President, Lord Mure, and Lord Shand) that in order to comply with the provisions of the Patent Law Amendment Act (15 and 16 Vict. cap. 83) and to make a patent good at law, there must be identity between the invention as disclosed in each of the provisional and final specifications.

Circumstances in which *held* that the claim in the complete specification of a patent was wider and of a different kind from that in the provisional specification, and that the patent was therefore invalid—*diss. Lord Deas*, on the ground that although the provisional specification contained superfluous matter, that of itself could not void the patent, the provisional specification being a document for the information of the law officer alone, who, if he thought the title too large or insufficient, might allow or require it to be amended.

Patent—Novelty—Infringement.

Circumstances in which *held (diss. Lord Deas)* that a claim for an invention by a patentee was not a novelty, because a particular mode of using it was previously known to the public, and admittedly was in prior use.

William Bailey, of Wolverhampton, with consent of Henry Medlock, of Charles Street, St James', for his interest, and Messrs A. & W. Mactear, Glasgow, their mandatories, presented a petition to the Sheriff of Lanarkshire against J. & D. Robertson, butchers, Glasgow, applying for interdict under the following circumstances. By letters-patent, dated the 27th June 1866, a patent for an invention for "Improvements in preserving Animal Substances" had been granted to the petitioners in the usual terms. In the provisional specification which was lodged along with the

petition "the nature" of the invention was declared to be as follows:—"The object of the said invention is to preserve animal substances, such as meat, poultry, game, and fish, for a long time in a fresh state, so that when eaten they cannot be distinguished from the same when recently killed; and for the preservation of hides. For this purpose we dissolve the ordinary commercial gelatine in boiling water, using about two pounds of gelatine to ten pounds of water. We then add, while hot, a volume equal to the volume of the solution of gelatine of a solution of bisulphite of lime (usually expressed by the formula $\text{CaO}, 2\text{SO}_2$) in water of about the specific gravity of 1070. While the solution of gelatine and bisulphite of lime is still warm and liquid we coat the substance to be preserved with it, either by dipping the substance into it or by brushing it over with two or three coats of the solution. If the substance has to be transported any distance in wooden vessels, the vessels should be saturated with some of the before-mentioned solution of bisulphate of lime in water, and when dry brushed over with the said solution of gelatine and bisulphite of lime. When the solution of gelatine and bisulphite of lime has firmly solidified on the surface of the animal substance, the latter may be packed, the vessel being closed as air-tight as possible. For the preservation of hides the interior surface only requires to be coated with the solution of gelatine and bisulphite of lime. The coating on the hides and the hides must be dried before they are packed. Before treating the animal substance other than hides as above, the viscera must be removed and the inside washed free from blood; it is then to be coated internally and externally as above described, and before it is cooked the coating of gelatine and bisulphite of lime must be removed by soaking it for a sufficient time in water."

The specification which was filed on 26th December 1866 was, *inter alia*, to the following effect:—"The nature of our said invention is to preserve animal substances, such as meat, poultry, game, fish, and other animal substances for a long time, and so that the same substances when so preserved, and although the animals from which the same are derived have been killed for a considerable time, cannot be distinguished when cooked from the like substances derived from similar animals which have been recently killed, and also for the preservation of hides.

"The manner in which our said invention is performed is as follows:—We employ a solution hereinafter distinguished as solution No. 1, being a solution of bisulphite of lime (usually expressed by the formula $\text{CaO}, 2\text{SO}_2$) in water of about the specific gravity of 1050, which specific gravity we find preferable to that of 1070. We sometimes form a solution, hereinafter distinguished as solution No. 2, by dissolving the ordinary commercial gelatine in boiling water, using from one part to two parts of gelatine in ten parts of water and adding ten parts of solution No. 1. In determining the proportion of gelatine to be used, we increase such proportion in inverse ratio to the decrease of the temperature of the place at which the solution is to be applied, using a larger proportion of gelatine when the temperature is low and a smaller proportion of gelatine when the temperature is high. Solution No. 2 is adapted for coating animal substances intended to be preserved, such as joints of meat, animals

which have been skinned, poultry and birds which have been plucked, fish, and also the internal surfaces of hides. For this purpose the viscera of the animals, birds, and fish, and also the gills of fish, should be removed, and the inside washed, so as to be thoroughly cleansed from blood and offensive matter. We then apply solution No. 2 while still warm and liquid to coat such animal substances, either by dipping such substances into such solution, or by brushing such substances over with two or three coats of such solution. Such solution is then allowed to dry and solidify, and, if required, we pack such animal substances in casks or other suitable vessels, rendered as airtight as may be. As to hides, we first cleanse the same by washing the inside thereof; we then apply solution No. 2 while still warm and liquid to coat the interior surface of such hides, but such interior coating, and also the hides themselves, must be rendered dry before the hides can be packed; the hides can then be packed in casks or other suitable vessels, but if the hides are to be used within a short period, say two months after the application of this solution, we do not find such packing necessary.

“For the preservation of animals without removing the skin or external covering thereof, and without removing hoofs or horns, we find it advantageous to employ a solution, hereinafter distinguished as solution No. 3, formed by mixing one part of salt with ten parts of solution No. 1, and from six to ten parts of water. We vary the proportion of water according to the temperature of the place at which the solution No. 3 is to be applied, using a larger proportion of water where such temperature is low, and a smaller proportion of water where such temperature is high. For this purpose, at the slaughtering of the animal, &c.

“For the preservation of fish we find it advantageous to employ a pickle or solution, hereinafter distinguished as solution No. 4, formed by mixing ten parts of cold water, one part of salt, and one part of solution No. 1. For this purpose we first deprive the fish of the viscera and gills, &c. . . .

“We find that solution No. 4 is also useful for preventing and arresting decomposition in fresh butchers' meat, game, poultry, and fish. For this purpose the animal substance to be treated may be dipped into the solution or wrapped in a cloth saturated with such solution.

“What we consider to be novel and improvements, and therefore we claim as the invention secured to us by the said in part recited letters-patent are—

“Firstly, the use of solution No. 1 for preserving animal substances.

“Secondly, the preservation of joints of meat, animals from which the skin or feathers have been removed, fish, and hides, by means of solution No. 2 in manner hereinbefore described.

“Thirdly, the preservation of animals without removing the skin by means of solution No. 3 in manner hereinbefore described.

“Fourthly, the preservation of fish, game, and poultry by means of solution No. 4 in manner hereinbefore described.

“Fifthly, the preventing and arresting decomposition in animal substances by means of solution No. 4 in manner hereinbefore described.

“But we do not claim the employment of gelatine or salt, nor of the processes of cleansing or

injection, nor of air-tight vessels, except in connection with and in aid of solution No. 1, and for the purpose of preserving animal substances, nor do we claim the use of solution No. 1 except for the purpose of preserving animal substances.”

Medlock had afterwards for a consideration assigned to Bailey all right and title he had in the patent, which, as Bailey stated in his petition and condescendence, consisted “in the use of bisulphite of lime (usually expressed by the formula $\text{CaO}, 2\text{SO}_2$) in solution by itself for preserving animal substances, and in manner described in said specification, along with gelatine or salt for preserving animal substances, including joints of meat, butchers' meat, the bodies of animals which have been skinned, poultry and birds which have been plucked, fish, birds, unskinned animals, and others, and for the preventing and arresting of decomposition in animal substances.”

The respondents, it was averred, had in the course of their business as butchers during several years, and particularly in 1873 and 1874, been using the invention specified, and further had been in the regular practice of procuring bisulphite of lime in solution from the manufacturers, without the consent of the patentees, for the object of preservation as above narrated. Interdict against them was therefore asked.

The respondents in their statement of facts averred that they had carried on business as butchers in Glasgow for seven years, and that for three or four they had used bisulphite of lime in preserving their meat. They obtained it from Messrs A. & W. Mactear, the petitioner's agents, and others. They further alleged—“(Stat. 2) The solution of bisulphite of lime is an article which has been in common use in this country for many years past, and long prior to June 1866 (the date of the petitioner's alleged letters-patent). It is a well-known article among chemists, and has been known for thirty years at least. . . . In particular, bisulphite of lime, or the article now commonly known by that term, was, between the 1st January 1861 and the dates of the pursuer's alleged patent, publicly used by William Rattray, chemist, Aberdeen, for preserving animal substances, and that within his place of business, Aberdeen, and elsewhere within the United Kingdom. (Stat. 3) The respondents have all along applied, and still apply, the bisulphite of lime to their meat in the pure and simple condition in which they receive it from the sellers. They have never mixed it with water or with any materials such as gelatine or salt, but they simply apply to the meat the article known as bisulphite of lime without any admixture whatever.” They further alleged a want of novelty in the petitioner's patent, averring that the improvements supposed to be contained in it were to be found in a patent granted in 1863 to Alexander Hett and J. W. Basset for the invention of “improvements in preserving animal substances, and animal and other substances used for food.” The alleged improvements were also to be found in other prior letters-patent; and, *inter alia*, in that granted in 1861 to William Rattray, Aberdeen, for the invention of “improvements in preserving organic substances.”

It was further objected to the petitioner's patent that the final varied materially from the provisional specification in the following respects:—“(Stat. 11) The provisional specification applies,

first, to a combination of gelatine with bisulphite of lime, by dipping or coating the animal substance; and second, to the saturation of wooden vessels with the bisulphite of lime solution before applying to them the combination of bisulphite and gelatine. The final specification claims five different things, viz. (first) the use of solution of bisulphite of lime for preserving animal substances; (secondly) the preservation of joints of meat, &c., by solution of bisulphite of lime and gelatine; (thirdly) the preservation of animals by means of solution of bisulphite of lime, salt, and water; (fourthly) the preservation of fish, &c., by solution of bisulphite of lime, salt, and cold water; and (fifthly) the preventing and arresting decomposition in animal substances by the last-mentioned mixture. (Stat. 13) The provisional specification of the petitioners does not refer to the use of a solution of bisulphite of lime alone to preserve animal substances, and the final specification, in stating the manner in which the alleged invention is performed, does not mention the use of a solution of bisulphite of lime alone."

The respondents pleaded, *inter alia*—" (1) The respondents having made use of bisulphite of lime alone for the preservation of meat, and that article having been well known and generally used by the public prior to June 1866 (the date of the alleged letters-patent), the respondents have not infringed the alleged letters-patent. (2) The alleged letters-patent and relative specification do not apply to the use of bisulphite of lime alone in the preservation of animal substances, and the use of that article alone is not an infringement of the alleged letters-patent. (4) Assuming that the alleged letters-patent and relative specification apply to the use of bisulphite of lime alone in the preservation of animal substances, the same, *quoad* that application, are null and void, in respect that the said Henry Medlock and William Bailey, the alleged patentees, were not the first and true inventors of the said application. (8) The letters-patent are null and void, in respect that the final specification claims the absolute application of bisulphite of lime for the preservation of animal substances, without limiting its application to the modes of using it described in the specification."

Both parties were allowed a proof of their averments, the purport of which sufficiently appears from the judgments pronounced in the case.

The Sheriff-Substitute (GUTHRIE) pronounced an interlocutor in which, after certain findings, he repelled the defences, and granted interdict as craved.

The defenders appealed to the Sheriff (DIXSON), who pronounced the following interlocutor:—

"Having heard counsel for the defenders and the pursuer's agent on the defenders' appeal, and considered the record and proof, adheres to the findings in the judgment appealed against, that the pursuer is assignee of the letters-patent mentioned in the said judgment, and that in pursuance thereof he and the original patentee filed the specification (hereinafter called the complete specification) mentioned in the judgment: For the reasons stated in the note hereto, recalls the said judgment *quoad ultra*: Finds that the said complete specification sets forth that the manner in which the alleged invention to which it applies is performed is by employing a solution of bisulphite of lime (mentioned in the specification as solution No. 1) alone, and also in combination with certain other solutions: Finds that the de-

fenders used the said solution No. 1 alone for preserving animal substances, but that it is not proved that they used it in combination with any of the said other solutions: Finds that the said letters-patent were issued after the said original patentee had lodged in the Patent Office a provisional specification describing the nature of his alleged invention: Finds that the said provisional specification does not describe the use of the said solution No. 1, or any other solution of bisulphite of lime alone as a means of preserving animal substances, but merely describes it as to be used in combination with a solution of gelatine: Finds that the said complete specification does not sufficiently describe the manner in which the said solution No. 1 is to be employed for preserving animal substances: Finds that a solution of bisulphite of lime for the said purpose was not a new invention at the time the said letters-patent were obtained: Therefore, and under reference to the note hereto, finds that the said letters-patent are not effectual for preventing the defenders from using the said solution No. 1 alone for the said purpose: Sustains, accordingly, the defences to that effect, and refuses the prayer of the petition.

"Note.—Questions of considerable difficulty and importance are involved in this case.

"The pursuer avers on record that the defenders have used for the preservation of meat a solution of bisulphite of lime similar to No. 1, both alone and in combination with other substances mentioned in his letters-patent. But he admittedly failed to prove their use of it except alone.

"On the other hand, the defenders' counsel admitted that they have used a solution similar to No. 1 in such a way as to infer an encroachment on the pursuer's rights if the patent validly prohibits such use. They contend that it does not, on the following grounds:—

"I. It does not apply to No. 1 solution when used alone.

"II. The complete is materially different from the provisional specification.

"III. The former does not describe the mode of using No. 1 solution alone; and

"IV. The use of such a solution for preserving meat was not a new discovery of the patentee.

"I. The proper construction of the complete specification is thought to infer the use of No. 1, not only along with the other solutions which it specifies, but alone. At the same time, the absence (1st) of any explanation as to the mode of using it alone, and (2d) of any reference in the provisional specification to that use, makes it doubtful whether the patentee intended his complete specification to bear such a meaning.

"II. A comparison of the complete with the provisional specifications shows that the latter states the object of the invention to be to preserve animal substances for a long time in a *fresh* state, 'so that when eaten they cannot be distinguished from the same when recently killed.' It does not mention the preservation of such substances salted. But the complete specification includes the use of solution No. 1 with one of salt, which admittedly would not preserve the meat fresh. It may be doubted whether the patent can cover the latter process.

"But without dwelling on this, it will be observed that the provisional specification thus describes the process for which the patent is

claimed:—‘We dissolve the ordinary commercial gelatine in boiling water, using about two pounds of gelatine to ten pounds of water. We then add, while hot, a volume equal to the volume of the solution of gelatine, of a solution of bisulphite of lime (usually expressed by the formula $\text{CaO}, 2\text{SO}_2$) in water of about the specific gravity of 1070. While the solution of gelatine and bisulphite of lime is still warm and liquid, we coat the substance to be preserved with it, either by dipping the substance into it, or by brushing it over with two or three coats of the solution.’ The directions conclude thus:—‘Before the meat is cooked, the coating of gelatine and bisulphite of lime must be removed by soaking it for a sufficient time in water.’

‘The process is thus the application to the meat of solutions of gelatine and (what is called) bisulphite of lime in combination, in defined proportions, warm and externally, so as to produce a coating which must be removed before the preserved meat can be cooked.

‘The complete specification repeats this description as to the use of ‘solution No. 2,’ with only an unimportant modification in the specific gravity of the dissolved bisulphite. So far it is unobjectionable.

‘But it also specifies the solution No. 1 uncombined with gelatine, without saying whether it is to be applied hot or cold, or whether it is to be used only externally and by way of coating, or otherwise. It thus includes application by injection, by saturation, and by mixing up with the meat when minced, the latter being one use by the defenders which the pursuers seek to prevent. The one specification deals with the combined solution as unfit for the human stomach, from being either unpalatable or deleterious; the other deals with one of the compounds as being wholesome, for it says nothing about its removal before the meat to which it is applied is cooked.

‘It is not easy to see how preserving meat by means of two solutions, the remains of which ‘must be’ removed before consumption of the meat, can be held as identical with preserving meat by one of the two solutions, which may be left on, or mixed up and eaten with the meat. It may hardly be imagined that the patentee had the simple and wholesome agent in view when he got a patent for the compound and apparently unwholesome, one.

‘It was urged for the pursuer (and is clearly proved) that the only preserving element in the double solution is the bisulphite, the gelatine being only used as a ‘vehicle,’ and for fixing it on to the meat. But in the provisional specification the two substances stand together as equally important; or, if one could be said to be the more so, it would be the gelatine, which is mentioned first, and to which the bisulphite is to be ‘added.’

‘It will not do for a patentee to say,—as the pursuer now does,—that of the two substances apparently equally essential to his invention one is non-essential, being merely intended for conveying and fixing the other. The provisional specification contains no data for thus discriminating between the two. It claims the preserving virtue for them in combination—for neither of them alone.

‘The object of every provisional specification is to disclose the nature of the alleged invention. It is published in order that all persons interested

may have an opportunity of opposing the application for the patent, and that the law-officer may know what is claimed as an invention (15 and 16 Vict. cap. 83, sects. 12, 14).

‘It may fairly be contended that while persons in the defenders’ trade may have known that a solution of bisulphite of lime was a preserving agent, which could be applied in certain ways, they did not know of the special virtues claimed (rightly or not) for a combination of it with dissolved gelatine, applied hot, and by way of a coating over meat. They had therefore no reason to dispute such a claim.

‘If, however, the provisional specification had disclosed a claim for a patent for preserving meat in any and every way by bisulphite of lime, Mr Clark, who held at the time a patent for doing so by solutions of bisulphites generally (without specifying that of lime), and Mr Rattray, who held one for a process consisting partly of enveloping the meat in cloth steeped in a concentrated solution of sulphite (*i.e.*, a solution of bisulphite) of lime, would have had an opportunity of opposing the application. They were deprived of that opportunity by the provisional specification not making such a claim. The law-officer must also have been unaware, and been misled as to the true nature, of that alleged invention as stated in the complete specification.

‘The object of the statute in requiring a provisional specification to be lodged and published would be defeated if the patent in this case were held to cover the use of the bisulphite alone.

‘The importance of any material difference between the provisional and complete specification is evident from the terms of the Patent Law Amendment Act (15 and 16 Vict. cap. 83). The former is there defined (sect. 16) as the ‘provisional specification, describing the nature of the said invention.’ The form for it in the schedule is—‘I do hereby declare the nature of the said invention for . . . to be as follows,’ &c., and it is for the invention as there described that the letters-patent are issued. The complete specification is filed afterwards by the patentee, and is not examined or passed by any public officer.

‘The invention patented is that described in the provisional specification, which the complete specification may and ought to amplify and supplement in matters of detail, but from which it may not vary materially.

‘This is clearly laid down by Lord Chief-Baron Pollock in *Newall v. Elliot* (1864, *Higgins’ Patent Cases*, 163, and in 10 Eng. Jur. N. S. 955)—‘The object of the statute, which requires a provisional specification, is nothing more than a legislative recognition of the custom which called upon every patentee when he applies for the patent to give some notion of what his invention is. That has been followed by an Act of Parliament requiring it to be done; but the object in both cases is to ascertain the identity of the invention, and to make it certain that the patentee shall ultimately obtain his patent for that invention which he presented to the Attorney-General in the first instance. . . . I have no doubt that the object of the Act of Parliament was not to ascertain the entirety of the invention, but the identity of the invention, so as to enable the Attorney-General, and in fact to enable a jury, ultimately to determine whether the invention fully specified was the

same invention as that which was presented to the notice of the Attorney-General by the provisional specification.' Baron Channell said in the same case—'I entirely adopt the test which my Lord Chief-Baron suggested, that the question is as to the identity of the invention which is disclosed by the full specification with that of which a short note or minute was made in the provisional specification.'

"The law is laid down to the same effect by Lord Chancellor Westbury in *Foxwell v. Bortosh* (1864, Higgins' Patent Cases, 164, 10 Law Times, N. S. 144); and by Lord Chancellor Chelmsford in *Penn v. Bibby* (1866, Higgins' Patent Cases, 165, Law Rep., 2 Chanc. 134).

"The same rule was laid down by Lord Chief-Justice Erle in *Thomas v. Welsh* (1 Law Rep., C. P. 192), in which the patentee succeeded on the ground that the 'difference between the provisional and complete specification was a slight one which injured nobody.'

"The pursuer's agent contended that a Sheriff Court must disregard these authorities, on account of the observations of the Lord President in *Dudgeon v. Thomson* (1873, 11 Macph. 863), that 'the plea' (of disconformity between the provisional and final specification) 'as stated, is altogether futile; nor do I think it a relevant plea in law; because if the letters-patent and complete specification are in accordance with one another, and the two make a valid and complete patent, then an imperfection in the provisional specification, I apprehend, would be altogether immaterial.' It is evident, both from this observation itself and from the rest of the opinion, that his Lordship did not mean to lay down that disconformity between the provisional and complete specifications would not in any case be fatal, and that he only criticised the plea 'as stated,' that mere disconformity in itself is fatal, and observed that a mere imperfection (*e.g.* incompleteness) in the former is unimportant. For the learned Judge goes on to say—'It appears to me that in these circumstances the true question under a plea of this kind is, whether the complete specification goes beyond the title and provisional specification, for these two must be taken together. . . . Is there something more claimed in the complete specification than was claimed and disclosed in the title and provisional specification?'

"Applying the principles thus explained to the present case, the Sheriff considers that the pursuer's complete specification both materially differs from and goes beyond the provisional specification; the latter having been limited to the use of a solution of bisulphite of lime in combination with one of gelatine, applied at a particular temperature and externally, while the former extends to the use of the solution of the bisulphite in every way, at every temperature, and both alone and in that combination.

"It is unnecessary to say whether the effect of this difference is to render the patent null to all intents. It is enough that it is fatal to the patent for a solution of the bisulphite as a preserving agent in the unqualified terms claimed in the complete specification. The defence to that effect, therefore, falls to be sustained.

"III. The defenders contended that the complete specification does not describe the mode of applying solution No. 1 when used alone, to which the

pursuer answered that any such description is unnecessary, because the solution can easily be, and has been, successfully applied by persons skilled in such matters, which is all that the law requires.

"This question involves two points—(1st) Whether, in point of law, a patent for a process is sufficient which does not define at all the way in which the materials employed in the process are to be employed? and (2d) Whether, in point of fact, the solution No. 1 can be employed properly without special instructions.

"(1) It must be kept in view that the patent is not for a preserving agent the mode of using which had been previously known, but for preserving meat by means not previously known. It is for producing a certain result by (alleged) newly discovered means, *viz.*, the use of a certain solution. In other words, it is for a process.

"The law is laid down in all the authorities that the complete specification must state fully and clearly the manner in which a process patented is to be carried out. 'The patentee must give the public every information which is necessary to enable them completely to perform every part of the patent which is new, although it may be sufficient to refer in general terms to such things as are old or well known.'—(*Hindmarch on Patents*, p. 170; see to the same effect *R. v. Wheeler*, 1819, Higgins' Patent Cases, 169; *Brunton v. Hawkes*, *ibid.* 169; *Morgan v. Steward*, *ibid.* 172). The questions which have arisen under the rule have been, Whether the description of the process in certain cases was sufficient, being only intelligible to persons of skill or persons in certain trades. No case was cited or has been found by the Sheriff indicating that a specification could be sustained which is quite silent as to the mode of performing the process patented.

"The complete specification as to No. 1 when used alone is in that position, for it only says 'we employ' it. That is thought to be insufficient.

"(2) Upon the question of fact, the pursuer contends that butchers and housekeepers are able to apply properly a chemical agent not previously used by them for that (or indeed any other) purpose, without any explanation or instructions whatever from the inventor. But neither butcher nor housekeeper would know without some instruction whether it was to be applied hot or cold, &c.

"The Sheriff cannot hold that a specification which gives no light on matters of such essential importance comes within the principle that a patent is only granted on condition of the patentee giving to the public sufficiently specific information as to the process patented that persons of skill in such matters can get the full benefit of it.

"The pursuer's argument, that the process is so simple that no instructions are required, is further negated by the fact that he issued cards for instructing the butcher trade as to the way to use the solution. It has repeatedly been held that a specification is incomplete which can only be applied by skilled persons after they have learnt how to do so by experiment (cases in *Higgins*, p. 181, *et seq.*) In this case such persons could only have learned about it in this way, or from information which the specification does not afford.

"The pursuer's law-agent tried to escape from this difficulty by contending that the patent is not for a process, but for an agent, like chloroform, chloralum, or some patent medicine. This is erroneous. The title clearly indicates a process, not an agent; for it is for 'improvements in preserving animal substances;' and the minute directions as to all the solutions, except No. 1, when used alone clearly show the same thing.

"The Sheriff accordingly is of opinion that the pursuer's patent for the use of that solution by itself is ineffectual from want of sufficient description of the process.

"IV. He concurs with the Sheriff-Substitute that prior use with regard to No. 1 is not to be inferred from the pursuer's patent of 1861 or Clark's patent of 1864. . . .

"Rattray's patent (No. 8/7 of process) is thought to be different.

"The Sheriff inclines to think that this infers a prior patent and use by Rattray. If the pursuer's claim as to No. 1 were sustained, Rattray and those holding his licence could no longer profit by his patent."

The petitioners appealed to the First Division of the Court of Session.

Additional pleas in law were then put in for the parties. The respondents pleaded further, *inter alia*—(1) On a sound construction of the letters-patent founded on, the use of bisulphite of lime alone in the preservation of animal substances is not thereby claimed, and the use of that article alone is not an infringement of the said letters-patent. (2) The said letters-patent are null and void, or invalid, in respect (1st) the alleged invention described in the complete specification is materially different from the invention described in the title and provisional specification, and the complete specification claims more than was claimed and disclosed in the said title and provisional specification; (2d) The said complete specification does not particularly describe and ascertain in what manner the alleged invention is to be performed; (3d) the said Henry Medlock and William Bailey were not the true and first inventors of the alleged invention claimed in the letters-patent; and (4th) The said alleged invention was publicly known and used at and prior to the date of the said letters-patent.

The petitioners argued—Three objections were taken to the patent by the respondents—(I.) That the final specification was disconform to the provisional; (II.) That the manner in which solution No. 1 was to be used was not sufficiently described; and (III.) That the patent had been anticipated. I. In the provisional specification it was not requisite to do more than give "some notion" of the patent. The objection of disconformity between the specifications must amount to a charge of dishonesty, to be available. At least, the final specification must be different from that brought under the notice of the law officers of the Crown. The objection was one for them, as the provisional specification, like the title, was tabled to them. To spoil the invention, the difference between the specifications must be of its essence. The six months interval allowed room for variations and improvement. The fact that the different expressions were used in the two specifications did not show disconformity. In the present

case the invention was bisulphite of lime. The invention of gelatine along with it in the provisional specification created no disconformity. It was the crude idea. It was, further, common knowledge that gelatine was applied for the fixing of the antiseptics. It was merely a vehicle. They were bound in any case to state in the final specification the best method known to the patentee (Act 15 and 16 Vict. cap. 83, secs. 18, 28, 29). II. This objection was not open upon the record, and even if it had been so it was ill founded in itself. Patents were not so strictly treated now as formerly. A more benignant and less critical construction was put upon them. The use of solution No. 1 was prescribed, and the manner was sufficiently set forth. The nature and the manner, if it were requisite that both should be separately treated, were described in the specification. Nobody reading the specification as a whole would doubt how the bisulphite of lime was to be applied. III. Upon the evidence in the case, there had been no anticipation in previous patents.

Authorities—Patent Law Amendment Act, 16 and 17 Vict. cap. 83; *Hill v. Evans*, 29 L. J., Exch. 409 (Baron Bramwell's opinion), 31 L. J. Chanc. 457; *Wood v. Zimmer*, Holt 58; *King v. Metcalfe*, 2 Stark 249; *Young v. Fernie*, 4 Giff. 577, L. R., 1 H. of L. 63; *Muntz v. Foster*, 2 Webs. Pat. Cases, 92, 93, 96; *Betts v. Menzies*, 10 Clark's H. of L. Cases 117; and other authorities quoted above in the Sheriff's note.

Argued for the respondents—I. The provisional and final specifications were disconform to one another, which invalidated the patent. That was clear from a comparison of the two. It might be that the statute did not require that the manner of use should be set forth in the provisional specification. But if it was set forth, the patentee was restricted to it. It could not be amplified in the final. The function of the claim in the final specification was the protection of the patentee. It was not necessary that there should be a claim at all. Here there was nothing in the specification leading to the claim. It was true that there was no case where a patent had been found to be invalid on the ground of such disconformity, but the cases on the point were few. II. The manner of performance was not sufficiently set forth in the specification. It was said in answer that this was a patent for a principle; but it would require a chemist to say what it was. It was not such that it would be available for ordinary use or for housekeepers without further guidance. There was no information that gelatine was not requisite. The claim gave the only information upon the matter, and it was unnecessary itself. The word "employed," in the portion of the specification devoted to the description of the nature and manner of the invention, was the whole direction. III. Upon the evidence there was no novelty in the invention.

Authorities—*Arnold v. Bradbury*, L. R., 6 Chanc. 706; *Thomas v. Welch*, L. R., 1 C.P. 192, 35 L. J., C.P. 200; *Newall v. Elliot*, 32 L. J. Exch. 120; *Penn v. Bibby*, L. R., 2 Chanc. 127; *Agnew on Patents*, p. 147; *Rex v. Wheeler*, 2 B. and Ald. 345; *Rex v. Mill*, 10 C. B. Repts. 379; *Croll v. Edge*, 9 C. B. Repts. 479; *Cannington v. Nutall*, L. R. 5 H. of L. 205; *Minter v. Mower*, 1 Web. Pat. Cas. 138; *Booth v. Kennard*, 26 L. J.,

Exch. 305, 1 H. and N. 527; *Betts v. Neilson*, L. R., 3 Chanc. 429.

At advising—

LORD PRESIDENT—In this case the petitioner in the Inferior Court obtained in 1866 a patent for “improvements in preserving animal substances,” and the prayer of the petition to the Sheriff is to interdict the respondent from “using or applying the material known as bisulphite of lime in solution, for preserving animal substances, or preventing and arresting decomposition in animal substances, and from using or applying the bisulphite of lime alone or in connection with gelatine or salt for the preservation of joints of meat, or of the bodies of animals, whether the skin or feathers have been removed therefrom or not, or of fish, game, poultry, or other animal substances, or for the purpose of preventing and arresting decomposition in animal substances in any manner described in said specification, and from using and applying the bisulphite of lime either alone or along or in connection with any other substance or substances for all or any of the purposes foresaid.”

Now, among those alternatives there is this general distinction, that interdict is sought against the use of bisulphite of lime in solution for preserving animal substances absolutely, and without any admixture with other substances, and, on the other hand, interdict is sought against the respondents using bisulphite of lime in solution along with other substances for the same purpose. The result of the evidence is that the respondents, who are butchers in Glasgow, have been for some time in the habit of using bisulphite of lime for preserving joints of meat, and the petitioners allege that that use is a violation of the rights secured to them under their letters-patent. In other words, their contention is that they have secured during the currency of the patent a monopoly of the use of bisulphite of lime for preserving animal substances; nor do they claim the use of solution No. 1 except for the purpose of preserving animal substances. Now, the defences which have been proponed upon the part of the respondents resolve themselves into objections to the validity of the patent as securing that right—that is to say, securing to the patentee a monopoly of the use of bisulphite of lime for preserving animal substances without reference to the manner in which it is used, or the combination in which it is used, or whether it is used simply or in combination with other things.

The first objection which is maintained by the respondents is that the specification does not describe the manner in which bisulphite of lime, pure, is to be used for the preservation of animal substances. This objection assumes that the specification sufficiently discloses the nature of the invention, because the objection is that it fails in the second part of the office of a specification only, viz., in describing the manner in which the invention is to be performed.

Now, in judging of the soundness of this objection, it is necessary to examine the specification as a whole; but the question will ultimately be, Whether the first claim made by the patentee is a good claim, in respect that he has, with reference to that first claim, both described the nature of the invention and the manner in which it is to be performed? The claim is stated under five heads—[reads as above]—and then follows this sentence

of disclamation—[reads as above]. Now, it is impossible to read those different heads of the claim without being struck with a distinction between the first and all the other heads of the claim. In all the other heads of the claim the solution, whether No. 2 or No. 3 or No. 4, is claimed for the purpose of preserving animal substances “in the manner hereinbefore described;” but in the first head of the claim the solution No. 1. is claimed for preserving animal substances without reference to any manner hereinbefore described. I do not say that that in itself constitutes any objection to the claim, but it is certainly a circumstance to be taken into account when we come to consider whether in regard to solution No. 1 there is in truth any description in the patent of the manner in which it is to be used or performed.

Reverting now to the specification, at the beginning we have this statement—“The nature of our said invention is to preserve animal substances, such as meat, poultry, game, fish, and other animal substances, for a long time, and so that the same substances when so preserved, and although the animals from which the same are derived have been killed for a considerable time, cannot be distinguished when cooked from the like substances derived from similar animals which have been recently killed, and also for the preservation of hides.” Now, there is a certain impropriety in the use of the language here, because this paragraph which I have just read professes to state the nature of the invention, and that it certainly in my opinion does not do. It states the object or end of the invention—the preservation of animal substances,—but it does not state the nature of the invention by means of which that object is attained. That, however, is but a verbal criticism, and would be no objection to the validity of the specification if within the specification itself you find, notwithstanding that improper use of language, that the nature of the invention is described; and accordingly I think that with regard to the first head of the claim, which, it must be borne in mind, is only for the use of solution No. 1 for the preservation of animal substances, the nature of the invention embraced in that head of the claim is set out in the body of the specification; and it is in the words which almost immediately follow the paragraph I have just read. The specification goes on thus—“The manner in which our said invention is performed is as follows:—We employ a solution, hereinafter distinguished as solution No. 1, being a solution of bisulphite of lime (usually expressed by the formula CaO , 2SO_2) in water of about the specific gravity of 1050, which specific gravity we find preferable to that of 1070.” Now, here again there is an impropriety of language in so far as I have read this paragraph, because what I have read appears to me to be a sufficient description of the nature of the invention, viz., the employment of bisulphite of lime as an antiseptic, or, in other words, to attain the object of preserving meat as that object is described in the preceding paragraph. But it is introduced by the inappropriate words—“The manner in which our invention is performed is as follows:” It is certainly not a description, in so far as solution No. 1 is concerned, of the manner of performing the invention, but it is a description, and the only description within

the specification of the nature of the invention. There is no more about solution No. 1 or about the first head of the claim in this specification at all. I have read every word of the specification that applies to the first head of the claim, or, in other words, to solution No. 1, and the question comes to be, whether within what I have read there is any description whatever of the manner in which the invention is to be performed.

It was contended that what is here stated is quite enough to suggest to the mind of any intelligent person that the application of bisulphite of lime to meat will act as an antiseptic. Very true so far, and that is the nature of the invention. But it is contended further that that being once understood you may apply it in any way, and that it is not necessary to tell you how to apply it. But I am afraid that it is not a good argument in patent law. You must comply with the proviso in the letters-patent, to state the manner in which the invention is to be performed, quite distinctly from the statement of the nature of the invention. You may combine the two in one set of words—that I do not dispute—but you must tell the world not only what the nature of your invention is, but also in what manner it is to be performed, and it will not absolve a patentee from that duty to say that any one can conjecture how it is to be performed, and that there is no mystery about it. That is not a good answer in patent law. But neither do I think it is a good answer here in point of fact, and applicable to the circumstances of this case. Observe, again, the words which are used with regard to this solution No. 1—“We employ solution No. 1,” which is a synonym for bisulphite of lime, “in water of about the specific gravity of 1050,”—that is to say, “We employ bisulphite of lime of the specific gravity of 1050;” and that is all that is said. He has already stated the object for which it is to be employed, viz. the preservation of animal substances, but, all that he tells as to how it is to be employed (he does not even say applied) is that bisulphite of lime of the specific gravity of 1050 is to be employed.

The natural question occurs to any one reading that, How am I to employ this? There are a great many ways in which a substance of this kind may be employed with reference to animal substances. It is not said that it is particularly applicable to animal substances in any particular state. It is not said that it is to be used for preserving joints of meat in particular, or whether it is to be employed in preserving entire carcasses of animals, with or without the skin, or poultry with or without the feathers. It is not said whether it is to be rubbed upon the animal substance to be preserved, or whether the animal substance is to be dipped in it, or whether it is to be used hot or cold, or whether it is to be used by evaporating the bisulphite of lime and creating a vapour which shall affect the meat. Any one of those methods may occur to the mind of a man reading this part of the specification, and he obtains no light whatever on the subject from the patentee. Now, contrast this with what this same patentee has done in regard to the other heads of his claim, all which, observe, are claimed quite distinctly and separately from this No. 1. He gives next a description of solution No. 2. He tells how that solution is to be made, and what its ingredients are, and so he describes the

nature of that part of his invention. But then he follows that up with a very distinct specification of the manner in which that part of the invention is to be performed. He begins the description of the manner in which it is to be performed with these very important words, “for this purpose.” Again, as regards the third head of his claim, he tells you how to compound solution No. 3, and to apply that solution to the preservation of animal substances in a particular condition, and then, when he has disclosed fully what solution No. 3 is, he goes on introducing the manner of performing the invention with the same very significant words, “for this purpose.” Again, as regards solution No. 4, he describes, in the first place what the ingredients and composition of that solution are, and again he introduces the manner in which that part of the invention is to be performed with “for this purpose.” And lastly, in regard to the second application of solution No. 4, he says—“We find that solution No. 4 is also useful for preventing and arresting decomposition in fresh butchers’ meat, game, poultry, and fish.”—and again he goes on to describe the manner of performing it, introducing it in the same terms. Now, that examination seems to me to give great significance and importance to the very peculiar way in which the claim in regard to No. 1 is made at the conclusion of the specification. No. 1 solution being nothing else than what chemists know as bisulphite of lime, is claimed for preserving animal substances without any reference to the manner in which it is to be used for that purpose, while in all the other heads of the claim reference is expressly made to “the manner herein before described” in which these different solutions are to be used.

I therefore come to the conclusion that this specification is defective in one of the essential particulars required to make a specification good, and that is, a description of the manner in which the invention is to be performed. Let me just, in conclusion, on this branch of the case, suggest this test of the sufficiency of the specification. When the specification is analysed, so far as applicable to the first head of the claim, or solution No. 1, what does it in reality amount to? This, and no more—“use bisulphite of lime of the specific gravity of 1050, for the purpose of preserving animal substances.” That, and not one idea beyond it, is what the patentee conveys to the world in so far as regards the first head of his claim. Now, just let us suppose that the other heads of the claim had not been here at all, and that the only thing in the specification was solution No. 1. That would have been a very short and simple specification certainly, but it would be such a specification as never was heard of in patent law before, and such as never has been sustained as a sufficient compliance with the proviso contained in the letters-patent.

But, then, in the second place, the respondents object that, in so far as No. 1 is concerned, there is such disconformity between the invention as disclosed in the complete specification and the invention as embraced in the title of the patent and the provisional specification as to constitute a fatal objection to the patent, upon the ground, that there is no identity of invention between the two; and that the complete specification claims a much larger and very different thing from what is claimed in the provisional specification. Now, I

must say that I think this objection also is perfectly well founded.

We have already seen quite sufficiently what it is that is claimed by the patentee under the first head of his claim in the complete specification. Now, let us see what it is that is alone claimed in the provisional specification. The provisional specification says—"The object of the said invention is to preserve animal substances, such as meat, poultry, game, and fish, for a long time in a fresh state, so that when eaten they cannot be distinguished from the same when recently killed, and for the preservation of hides." Now, here the language used by the patentee is more accurate than when he states the object of the invention in his complete specification, for he here very properly calls it the object of his invention, while in the other he calls it very improperly the nature of his invention. Then he goes on to comply with what is required by the statute in a provisional specification, which is to state the nature of the invention. When one first reads that which follows, and which I am about to read, it certainly sounds more like a description of the manner of performing an invention; and I cannot but admit that while it partakes of that character it still does quite sufficiently disclose the nature of the invention—[reads provisional specification, as above]. Now, it appears to me that that is as nearly as possible a description of the second head of the claim in the complete specification. It is not quite identical—that is of small importance,—but it is as nearly as possible the claim you have under the second head of the complete specification, and the thing claimed is not the use of bisulphite of lime under all circumstances and conditions, pure or mixed with other substances, for the preservation of animal substances, but it is the use of bisulphite of lime in a particular combination. There is not a word about bisulphite of lime in the commencement of the description here. The first thing to be done is to dissolve a certain quantity of the ordinary commercial gelatine in water of a particular temperature, and then to add to it bisulphite of lime, and with that solution, composed of gelatine and bisulphite of lime, a certain application to the substances to be preserved is to be made, so as to create over and around the substances to be preserved a certain solid coating, a coating which is to have the effect of preserving the animal substances, and which coating must be removed before the animal substances can be used for human food. Now, that is a very precise and specific and limited claim. It is a claim for one particular solution, composed partly of bisulphite of lime and partly of gelatine, and the object, which is distinctly stated, is so to apply that solution to animal substances as to make a solid coating all over them, which coating you must remove before you can use the meat. Now, is that a claim which can be identified with, or which in any reasonable sense can be said to comprehend, a claim for the use of bisulphite of lime under all circumstances and conditions, pure or mixed, for the preservation of animal substances? I cannot but answer that question in the negative. I think the claim in the complete specification is a great deal wider, and of a different kind, and therefore that there is not that identity between the invention disclosed in

the one specification and in the other which is necessary to comply with the provision of the statute and to make a good patent in the eye of the law. In that view also I am disposed to say that this patentee cannot prevail.

The third objection which is maintained is an objection of want of novelty, but I confess I am not very willing to enter upon the consideration of that question, because it is really excluded by the construction which I have already put upon the complete specification. If there is no good claim for a monopoly of bisulphite of lime under all circumstances and conditions for the purpose of preserving meat, it is in vain to inquire whether other people before hand have used bisulphite of lime for that purpose. In short, judgment upon the first objection seems to me necessarily to supersede the consideration of the question of novelty or no novelty, and therefore I am not disposed to base my judgment upon that ground at all; but I think that the patent is bad—first, because the complete specification does not disclose the manner in which the invention under the first head of the claim is to be performed; and secondly, because that head of the claim is greatly in excess of that which is claimed in the provisional specification.

For these reasons, I am disposed to adhere to the interlocutor of the Sheriff in substance, though perhaps it may be desirable in some respects to modify his findings, if your Lordships should not be prepared, as I confess I am unwilling, to deal with the question of the novelty of the supposed invention.

LORD DEAS—In December 1866 the complainers obtained letters-patent for "Improvements in preserving animal substances," subject to the usual conditions that they should particularly describe and ascertain the nature of their invention, and in what manner the same was to be performed, and cause the same to be filed in the Great Seal Patent Office within six months after the date of the patent.

Under the terms of their completed specification, lodged within the specified period, the complainers maintain that they have a good patent for the application of what is therein called solution No. 1. If this be so, the respondents admit that they have infringed the patent by using that solution for the purpose referred to. On the other hand, the complainers do not allege that the respondents have used any of the other solutions mentioned in their completed specification and said to be protected by the patent; so that the only question before us for decision really is, Whether there is a good patent for the use of the solution No. 1 for the specified purpose,—that is, for preserving animal substances, such as butcher-meat, poultry, game, and fish, in a fresh state for a long time, so that the same shall not be distinguishable from butcher-meat, poultry, &c., newly killed.

The two great leading features of a patent or of the subject of a patent are utility and novelty.

The utility of the complainers' invention is admitted on all hands. It is just because of its utility that the Butcher Trade Association of Glasgow, through the Messrs Robertson, defend the action, in order that they may enjoy the benefit of that utility without paying for a licence to use the invention. Mr John Robertson, the prin-

cial partner of the respondents' firm, deposes that the firm began to use the solution No. 1 shortly after its introduction into Glasgow by the complainer's agent Mr Mactear, which was in the same year in which the patent was taken out. "We have used it," he says, "more or less ever since,—the quantity used depending on the season of the year. We use it more largely during the hot weather of summer than during winter." He says they got the solution at first from Mr Mactear, but afterwards from the Apothecaries Hall, where it came to be sold quite publicly to the trade. He admits it is a convenience to his firm in their trade, and on re-examination he says, "I believe the trade use this bisulphite of lime very largely. I suppose it is used in nearly every shop in town."

The evidence of Mr Robertson is confirmed by that of Mr Laidlaw, the principal assistant to the Glasgow Apothecaries Company. He deposes that the Messrs Robertson "have been customers of the company for at least eighteen months. They got various things from us—among others the bisulphite of lime or solution of sulphite of lime. I believe they began to get it from us in December 1873. The constituent elements of that solution are sulphurous acid, lime, and water. The symbol of it is $\text{CaO}, 2\text{SO}_2$." Mr Laidlaw then speaks to the question whether it is or is not a chemical compound; but as that was admitted in the argument to be of no moment, I need not quote what either he or others say on that point. Mr Laidlaw goes on to say that the solution, in the form in which it was sold to the Messrs Robertson, has been "among the company's articles of sale for a number of years, but I cannot say the exact number. Our principal customers for it are the butchers. The brewers use it also, but they do not buy it very much from us. I believe the butchers we sell it to use it for the preservation of animal food. We make no secret of selling it, but we sell it quite openly. We sell it occasionally under the title of bisulphite of lime, but very often under other names. It is asked for as 'Parlez vous,' 'Madame Rachel,' 'Jerry,' 'Lime-juice,' 'The Doctor,' and various other names. We charge 2s. 6d. per gallon for it. So far as I am aware, we have never bought any of it from Mr Mactear. His price is 3s. 6d. per gallon."

The other names besides "bisulphite of lime" are obviously used to avoid the risk of challenge by the patentees; and, on the other hand, the higher price charged by Mr Mactear seems to have been intended in lieu of licence duty; but neither of these facts are material to the present issue.

Mr Laidlaw afterwards says—"Since the butchers began to use it our sale of it has been very large. I could not say what the amount of our sale of it has been. During certain seasons it is a very important article of sale. During the summer season we get through a good deal of it. I believe nearly every butcher in Glasgow uses it. We had a great many of them who were constant customers for it; and I believe they regard it as an article of great utility to them. We do not sell so much of it now. I believe the falling off of our sales is due to this case,—many of the butchers having stopped using it in consequence."

We have also evidence of the practical utility of the solution for the purpose in view from

other witnesses on both sides, including the men of skill. It is unnecessary, therefore, to say more upon that point. The utility is palpable.

As to its novelty, I am of opinion that that also is established. Of prior practical use of the solution for the purpose of preserving animal food of any kind in a fresh state, we have no trace whatever. Certainly nothing of the kind had ever occurred to the respondents or to the butcher trade of Glasgow. Mr Robertson candidly says—"I had never heard before of bisulphite of lime being used for the preservation of meat until Mr Mactear brought it to me with Mr Findlay Bell's certificate. It was a novelty to me. We had used nothing at all before for the preservation of fresh meat. For salt beef we had proceeded in the ordinary way, of making a pickle by salt, and saltpetre, and sometimes sugar. These were the only antiseptics that I knew to be applied, and they were only applied when we intended to have beef cured or salted. The notion of having a thing that would preserve meat in a fresh state was something new in the experience of the trade, so far as I knew; and I am not aware that anything has ever been found better adapted for that purpose than the use of this bisulphite of lime. I am not aware of anything else that would produce the same results."

If the state of practical knowledge on the part either of the sellers or consumers of animal food in other parts of the kingdom had been different from what it is thus proved to have been in Glasgow, there can be no doubt that we should have had evidence to that effect. In the absence of any such evidence we must conclude that there was no such difference.

The evidence of Dr Wallace as a skilled witness (as well as that of Mr Ogilvie, who was held as concurring with him *in omnibus*), goes distinctly in the same direction. He says—"The result produced by the application of bisulphite of lime to meat is a specifically different result from what sulphurous acid produces when applied to meat, or saltpetre, or any of the other antiseptics. It resembles more the effect of sulphurous acid, but there is this difference, that sulphurous acid has nothing to fix it, whereas the bisulphite of lime has the lime to fix the sulphurous acid, so that its action may be continued for a longer time, and it is gradually given out as the beef requires it. The effect produced upon the meat is also different from what sulphite of soda or potash produces. I do not know that the effect itself is so very much different, but I regard the sulphites of the alkalis as not being applicable to this purpose, because they would communicate a distinct taste to the meat. They would therefore produce a different result from what the bisulphite of lime produces, and it is also a different result from what the chloride of sodium or nitrite of potash, or saltpetre, or any other antiseptic that I know of, produces. Therefore this invention is an invention for the purpose of producing an effect specifically different from that of any other known antiseptic. I consider that the result which it obtains is a better result than any obtained before. I think that the fact that this is the only patent that has ever come practically into use is sufficient to shew that. It is the only chemical antiseptic that has ever been a practical success; and it was a new contrivance for preserving meat at the time when it was introduced."

But it is upon certain prior patents, or what

appears on the face of some of them, that the respondents rest their objection to the want of novelty in the complainers' patent, and it is said that, although none of these patents may be valid for the purpose in question, there may be enough disclosed on the face of one or more of them to exclude the complainers from claiming novelty for their invention. Now, without denying the possibility of this being so in some cases, I am unable to see that it is the case here. The Sheriff-Substitute gives detailed reasons for his opinion that none of the patents referred to can be held either to make such a disclosure or to be anticipations of the complainers' patent, and in these reasons I substantially agree. The Sheriff differs only as to Rattray's patent, and it was upon that patent only that the argument at the bar against the novelty was seriously rested. I am not however convinced by that argument.

Rattray's patent was obtained on 8th July 1861, for "improvements in preserving organic substances."

His completed specification bears that his invention consists of two parts—First, "of a mode of preserving animal and vegetable matters by impregnating them with an aqueous solution of sulphurous acid," the effect of which is to preserve them from decay for a considerable period. Secondly, "of the use of alkaline and earthy sulphites in packing preserved animal and vegetable matters in vessels or cases."

He then gives a long description of the mode in which he uses three and sometimes four solutions of sulphurous acid of different strengths in succession upon the material to be preserved in a water-tight curing vessel. When the material has been covered by the solution No. 1, the vessel is to be covered and kept undisturbed for from three to five hours, more or less, at the lapse of which time the liquid is to be allowed to drain off for from three to four hours. The solution No. 2 is then to be run into the curing vessel and left to act undisturbed for from three to five hours, after which it is to be allowed to drain off as formerly for from three to four hours more. The solution No. 3 is then to be run in and left undisturbed for from three to five hours, at the lapse of which time it is to be allowed to drain off for three or four hours like the others, making a series of steeping and draining processes occupying altogether from 18 to 27 hours. The effect of the three solutions thus employed, Mr Rattray says, generally is, that the substances submitted to the treatment are found to retain a somewhat pungent smell of the acid, and to be in appearance somewhat plump and swelled; and it is this pungent smell and swelled appearance which alone are said to indicate that the treatment has been sufficient to secure their preservation, so that, if these characteristics are not sufficiently developed, the solution No. 4 must be applied, but for a shorter period. The above, it is added, concludes the *first* part of the patentee's invention, and the substances are then ready for the *second* part of the invention, which he then goes on to describe as consisting of two modes—the dry mode, by which the pieces are packed in casks or cases in dry powder; and the liquid mode, by which they are packed in cases as securely air tight as possible. It is only when Mr Rattray comes to these two modes of applying the second part of his invention that he mentions sulphite of lime at all.

He says that when he gets the length of packing he adopts either what he calls the dry mode or the liquid mode of applying sulphite of lime. According to the dry mode, he envelopes each piece of the material in a cover of linen or cotton cloth, "such cloth having been previously steeped in a concentrated solution of sulphite of lime or of sulphite of alumina, in sulphurous acid, and dried",—the interstices between the packages being filled up with the alkaline or earthy sulphites reduced to dry powder in the manner previously described. According to the liquid mode, he says the substances, after being dipped into the same solution as in the dry mode, are packed without being dried, and upon the cases being filled, the interstices are filled up with a solution in sulphurous acid of any of the sulphites previously named of strength measuring about 2° on Twaddle's hydrometer. In either case, he adds, it will be necessary to have the packing cases as securely air and water-tight as possible.

Now the merit, and the whole merit, of the present complainers' patent, so far as we have now to deal with it, consists in this,—that his solution No. 1 of bisulphite of lime may be practically used for preserving meat, &c., in a fresh state for a long time, so that it cannot be distinguished from meat, &c., recently killed. That this is a valuable use of the bisulphite of lime there can be no doubt, and of this use we do not find the slightest idea or trace in Rattray's specification. He does not propose to use the bisulphite of lime at all till by repeated applications of sulphurous acid, and repeated drainings of that acid from the meat, he has succeeded in causing the meat "to retain a somewhat pungent smell of the acid, and to be in appearance somewhat plump and swelled,"—that is to say, he does not suggest the use of bisulphite of lime at all till the meat has become different in smell and appearance from fresh meat, so that it never can have again either the actual freshness or the appearance of recently killed meat. It would be very unreasonable, I think, if Rattray's proposal to use bisulphite of lime to keep the meat in the state into which he had thus brought it should exclude the complainers from the benefit of their discovery that bisulphite of lime may be practically used for keeping meat *ab initio* in the same fresh state in which it was when killed. By Mr Rattray's method, as Dr Wallace observes, "There are sixteen hours at least of alternate steepings in sulphurous acid; these would go to exhaust the natural juices of the meat. Then there would be a great amount of handlings of the beef by steeping it, drying it, re-steeping it, and so on, and that handling would be injurious. Then there is the time occupied and the labour,—all causing expense. In the sulphurous acid process recommended by Rattray the appearance of the beef is said to be altered; it becomes plump and swelled. That indicates a change having taken place in the substance of the beef, which must necessarily be injurious." It is not surprising that in these circumstances Dr Wallace should say—"I should think no man in his senses, no butcher for instance, would ever think of applying this process as a whole to the preservation of meat." Accordingly it does not appear that Mr Rattray's method has ever been a practical success to any extent whatever.

Sulphurous acid was, of course, all along known as an antiseptic, and a compound of sulphurous acid with lime in solution, now called the bisulphite of lime, was, I doubt not, also known. But the adaptation of known substances to a new purpose may be quite legitimately made the subject of a patent. And the discovery that they may be practically used in combination for a useful purpose may, in like manner, be legitimately made the subject of a patent. The complainers found that a solution of bisulphite of lime, which is a compound of sulphurous acid with lime, might be practically used for preserving meat in a fresh state. That was the merit of their invention, whether it be called the discovery of a use of the compound or an important improvement on the uses of it formerly known. The sulphurous acid would not have succeeded by itself, because, as Dr Wallace observes, "the sulphurous acid has nothing to fix it, whereas the bisulphite has the lime to fix the sulphurous acid, so that its action may be continued for a longer time, and it is gradually given out as the beef requires it."

I cannot think, therefore, that the novelty claimed for the complainer's invention is excluded by the curing processes described in Rattray's specification. Both parts of his invention were really curing processes, whether taken separately or together. The meat may have been cured by the sulphurous acid under the first part of the invention with less change upon it than when cured by salt or saltpetre, but it was certainly not thereby preserved or proposed to be preserved in a fresh state. The second part of the invention does not seem to have been intended to be used without the first; but supposing it to have been so, it was not suggested that the meat would thereby be effectually preserved without being at once packed in casks or cases "as securely air and water-tight as possible."

In short, neither by the first part of Rattray's invention taken by itself, nor by the second part of that invention taken by itself, nor by both parts combined, was it either proposed or suggested that by the application of bisulphite of lime animal substances such as meat, poultry, game, &c. might be preserved in a fresh state for a long or considerable time, so that they could not be distinguished when cooked from what had been recently killed. Accordingly it never occurred to any of the butcher trade that such a result could be effected or had been contemplated by Rattray's patent, published in July 1861; and, on the contrary, the whole trade was taken by surprise by the discovery revealed by the complainer's patent published in December 1866. Bisulphite of lime was known before the days either of Rattray or the complainers. If Rattray's patent be otherwise good, he may be entitled to monopolise the use of sulphite of lime to produce the result which it was his object to produce. But that will not prevent the complainers' patent from being good for the use of the same sulphite of lime to produce the practically useful and very different result which it was their object to produce. They were the inventors of that application to the purpose of that effect. To use a known substance to produce a particular effect which is of great practical utility and which has not been produced before, is undoubtedly a proper subject for a patent. Atmospheric air, for instance, is the same substance whether cold or hot, but the discovery that heated

air produced upon a smelting furnace an important and useful effect not known before, became the subject of one of the most valuable patents known. The heated air was not patented, but the application of it for that particular purpose was. So here, the bisulphite of lime is not patented by the complainers, but the application of it for the particular purpose of preserving meat for a long time in a perfectly fresh state is so. The principle of contract between the patentee and the public, on which all patents are held to proceed, is here most justly applicable. Assuming, as I am doing in the meantime, that there are no fatal objections of a formal or technical nature to the wording of either of the complainers' specifications, the complainers have discovered and communicated to the public a fact of great practical utility;—viz., that by the application of a certain known agent—viz., bisulphite of lime—to such animal substances as meat, poultry, &c., the meat, &c., may be preserved for a long time in the same fresh state as when newly killed; and it is only fair and reasonable, therefore, that in the use of their invention the complainers' protection should correspond to the benefit they have thus conferred on the public.

But two objections, of a different class, are made to the complainers' final or completed specification. It is said, 1st, that it does not sufficiently disclose the nature of the invention; and 2d, that it does not at all disclose the manner of using that invention.

I am not satisfied that either of these objections is well founded.

It must be recollected that, although skilled assistance is frequently taken in framing a specification, the specification is nevertheless to be regarded as the language of the patentee himself, and as addressed to persons of ordinary or tolerable skill. A fair and reasonable construction is therefore to be given to it. It is not required to be artistically divided into heads;—one dealing with the nature of the invention, and the other with the manner of using the invention. The two may be mixed up together, and yet the meaning may be clear enough. The manner of using the invention may sometimes throw light on the nature of the invention, and the nature of the invention may sometimes throw so much light upon the manner of using it as to render very little, if anything, necessary to be added on that subject.

Confining myself to the claim for solution No. 1, as being the only claim now in dispute, I find what is said about it in the completed specification to be this:—"The nature of our invention is to preserve animal substances, such as meat, poultry, game, fish, and other animal substances, for a long time, and so that the same substances when so preserved, and although the animals from which the same are derived have been killed for a considerable time, cannot be distinguished when cooked from the like substances derived from similar animals which have been recently killed." (The preservation of hides may at present be omitted). "The manner in which our said invention is performed is as follows:—We employ a solution, hereinafter distinguished as solution No. 1, being a solution of bisulphite of lime, usually expressed by the formula $\text{CaO}, 2\text{SO}_2$, in water of about the specific gravity of 1050, which specific gravity we find preferable to that of 1070.

We sometimes form a solution, hereinafter distinguished as solution No. 2, by dissolving the ordinary commercial gelatine in boiling water, using from one to two parts of gelatine in ten parts of solution No. 1." The specification then goes on to mention solutions Nos. 3, 4, and 5, which are used for different purposes; but as we are here dealing only with solution No. 1, these need not be quoted.

At the end of the specification the patentees say "what we consider to be novel and improvements, and therefore claim as the invention secured to us by the said in part recited letters-patent, are—Firstly, the use of the solution No. 1 for preserving animal substances"—(2d, 3d, 4th, and 5th, I need not quote)—"But we do not claim the employment of gelatine or salt, nor of the processes of cleansing or injection, nor of airtight vessels, except in connection with and in aid of the solution No. 1, and for the purposes of preserving animal substances, nor do we claim the use of solution No. 1 except for the purpose of preserving animal substances."

Now, taking all this in connection with the title of the letters-patent "for the invention of improvements in preserving animal substances," I confess I do not see any insufficiency in the description of the nature of the invention, or in other words of the discovery or improvement, which had been patented. On the contrary, I think it is clear enough to what class of "manufactures," to use the comprehensive word in the old statute,—or of "inventions," to use the equally comprehensive word in the modern statute, the invention in question belongs, and to what classes of inventions it does not belong; and this, I think, was all that was intended by requiring the "nature" of the invention to be stated, whether in the provisional or completed specifications. When it is stated in the title that the patent is "for improvements in preserving animal substances" and in the body of the specification that the patentees' discovery or invention is that by the use of bisulphite of lime, meat, &c., may be preserved, for a long time, as fresh as when newly killed, the nature of the discovery or invention as distinguished from other discoveries or inventions, or from other classes of discoveries or inventions, is at once disclosed, and I know no plainer way in which the nature of the discovery or invention could well be described in order to satisfy the object of the statute and relative regulations on this particular head.

The objection that the complainer's completed specification does not describe the manner, or any one manner, of using the invention, appears at first sight more formidable. But, on the whole, I think it is an objection more in form than in substance, and too critical to be sustained. The object of requiring the manner of using the invention to be specified, of course, is that persons of ordinary or tolerable skill may be enabled to use it. But how much or how little must be said for that purpose depends on the nature of the invention on the one hand, and the prevailing knowledge of the subject on the other. Accordingly, in the complainers' specification, when they come to deal with their other solutions, which were to be used for a variety of curative purposes, they give more ample directions as to the manner of using or employing them, because, in these somewhat complicated progresses, full directions might

naturally be required or at least expected to be given. The use of solution No. 1. is substantially claimed for the purpose of preserving animal substances for a long time in a fresh state, and for that purpose only. The solution is stated to be a solution of bisulphite of lime, usually expressed by the formula $\text{CaO } 2\text{SO}_2$, which is proved to be a known and recognised formula in the Apothecaries' Hall, Glasgow, so that any one can have the solution by asking for it. The strength of the solution, moreover, is stated. It is to be in water of the specific gravity of 1050, which the complainers say they find preferable to 1070, thus explaining the preparation of the solution independently of the formula. The complainers do not say in so many words that they then put the solution on the meat, but they say that they employ it to preserve the meat fresh, which in substance is the same thing. By telling the butcher trade to employ it for this purpose they really tell them to put it on the meat. To say more than this was quite unnecessary, for the whole butcher trade knew at once how to put it on. To have told them to put it on or employ it in some one way would have been misleading, for it requires to be put on or employed in different ways, and this the butcher trade, being accustomed to the use of antiseptics (as indeed all housekeepers are) perfectly understood. Accordingly, the respondent, Mr John Robertson, who represents the trade, after mentioning that in summer time his firm use about a gallon a week of the liquid, says—"For a batch of collops, 10 lbs., we use a wineglassful" (that is, knowing it to be perfectly wholesome, they simply pour it among the collops). "When we apply it to joints we simply brush it over," and he adds in a passage I have already quoted, that the trade use it very largely. "I suppose it is used in nearly every shop in town."

It has been observed that there is no direction such as is given in the specification relative to solutions Nos. 3 and 4 for removing the substance used from the meat before the meat is cooked. But the silence on this subject in the one case, and the direction given in the other, of themselves sufficiently indicate that no removal of the substance was required in the one case as it was in the other; and this it is obvious Mr Robertson and the trade perfectly understood.

It is important to observe that Mr Robertson, although an adverse party, does not say or suggest that either he or any one of his numerous constituents, consisting of the associated butcher trade of Glasgow, either required or received any direction to apply the bisulphite of lime in the manner in which he says he and they did apply it beyond what they found in the complainers' specification. The Sheriff says in his note that the simplicity of the process is negatived by the fact mentioned by Mr Mactear that he issued cards for instructing the butcher trade as to the way to use the solution. That is not, however, a correct version of Mr Mactear's evidence about the cards, one of which, he says, "I now produce," meaning obviously "one of which I now exhibit," for I find there is no such card produced in process and never was. The words attributed to Mr Robertson are not very grammatical, but his object I think in referring to the cards was to show that the public were made aware that what the complainers were selling was "the bisulphite of lime alone," and that whoever used it in the manner

and for the purpose described in the cards without purchasing it from the patentees or obtaining their authority so to use it, would be liable in the pains of law. If the respondents had understood Mr Mactear to mean that until the cards were issued the trade did not know how to use the solution No. 1, the respondents would of course at once have required the card to be put into process, and would have led or attempted to lead evidence to show the date at which the cards were issued, and that prior to that date the manner of using the solution had not been understood, so that it was to the cards and not to the specification that the knowledge and the practice were to be attributed. In place of this the respondents have left us in the position of not being judicially entitled even to see the card, far less to allow conjectures about it and the circumstances connected with it to weigh as evidence in the case.

It is indeed plain enough to me that the respondents, Messrs Robertson and their constituents, never meant to dispute the fact that the terms of the specification had enabled them to know how to use the solution No. 1. It is impossible otherwise to account for the absence from the record of any averment to the contrary, and of any plea in law raising an objection that in this respect the specification was defective. Their 3d statement of facts goes strongly the other way. It is in these terms:—"The respondents have all along applied and still apply the bisulphite of lime to their meat in the pure and simple condition in which they receive it from the sellers. They have never mixed it with water or with any materials such as gelatine or salt, but they simply apply to the meat the article known as bisulphite of lime, without any admixture whatever." This statement, without at the same time saying or suggesting that any difficulty had ever been felt as to how "bisulphite of lime, without any admixture whatever," should be applied to the meat, seems to me equivalent to a judicial admission that no such difficulty had been felt, and this is quite in accordance with Mr Robertson's evidence.

The state of the record on this subject is all the more important from its having been closed, as the proof itself was, with great deliberation. The action was raised in November 1874, and the record was closed in the end of December same year. But in October 1875 the respondents got the record opened up, and various additions by way of amendments admitted into it, after which it was again closed and the case allowed to be adjudicated upon without either averment, plea-in-law, or proof being proposed to raise an objection to the specification as not disclosing the manner in which the "bisulphite of lime, without any admixture whatever," was to be used.

Now, I do not say that this excludes the respondents from now pleading that there is in this respect a technical objection to the specification which voids the patent. But I do say that in dealing with that objection we must deal with it on the footing that in point of fact the terms of the specification enabled the respondents, Messrs Robertson, and the whole butcher trade of Glasgow, to know how to use the solution No. 1, and that they did forthwith use it with success accordingly. This result seems to me to demonstrate that there has been no omission to give to the workmen who would naturally be employed those directions which were necessary to enable them

to carry out the discovery, (or, in other words, "the invention"), and this being so, there is, I apprehend, no omission which can void the patent.

Much, as I have already said, must always depend upon the nature of the invention as well as upon the knowledge of those who are to use it. In *Bewley v. Hancock* (6 D. M. G., 391), Lord Cranworth laid it down that a discovery that the mixture of two or more simple substances in certain definite proportions would form a compound substance valuable for medical qualities, would be a good subject matter for a patent. Assuming his Lordship to be right in this, and the patent to be for a pill for curing a specified disease, I doubt if after describing the proportions to be put into the pill it would be necessary to add "then swallow the pill."

There remains, however, the objection of alleged discrepancy between the provisional and completed specifications; or, to put it in its more formidable shape, that the complainers' completed specification goes beyond and claims more than was claimed either in the title or in the body of the provisional specification.

If this means that the completed specification claims the bisulphite of lime for other purposes beside the preservation of animal substances, while the title of both specifications is limited to improvements in preserving animal substances, the answer obviously is, that construing the words of the completed specification which deal with the manner and nature of the invention, along with the concluding passages which state the claims, it is clear enough that the bisulphite of lime is claimed for improvements in preserving in a fresh state animal substances only.

I rather suppose, however, that the objection taken upon the ground of discrepancy between the provisional and completed specifications was meant to be rested upon the omission in the completed specification of what is said in the provisional specification of the use to be made of the ordinary commercial gelatine so far as applicable to solution No. 1.

Now, it is quite true that in the provisional specification it was proposed in general terms to mix the solution to be employed of bisulphite of lime with a solution of the ordinary commercial gelatine dissolved in hot water, and that no mention is there made of a solution of bisulphite of lime without the gelatine. But the provisional specification did not fall to be published. It remained a latent document in the hands of the law-officer for his information merely of the nature of the invention, which is all that the statute and relative rules and regulations require to be described in the provisional specification,—that is to say, of the category to which the invention belonged, and which was thus distinguished from the numerous other categories of inventions for which letters-patent might be granted, and to which other categories it did not belong. The schedule of a provisional specification appended to the Act 15 and 16 Vict. c. 83, is, accordingly, limited to an insertion of the title and a description of the nature of the invention. The complainer's provisional specification thus contained much that was superfluous; but superfluous matter, even in a completed specification, will not render that specification bad if it does not mislead the public. Still less can superfluous matter void a provisional specification, which is

not for the information of the public, but of the law officer only, who, if he think the title of it too large or insufficient, may allow or require that title to be amended. The complainers had the usual period of six months to make experiments with a view to improving their invention and preparing their full and completed specification so as to obtain the benefit of these improvements, and the result seems to have been to satisfy them that where the object simply was to keep meat, &c., in a fresh state, as contradistinguished from certain curing processes, the gelatine, which was only for coating, was unnecessary, as the bisulphite of lime was found to be sufficient of itself, as Dr Wallace explains in his evidence, to fix the sulphurous acid, which was quite well known to be the only antiseptic.

Now, the question is—Were the complainers entitled in their completed specification to omit the ordinary commercial article called gelatine, as being found in the course of their six months' experiments not to be required in the strongest of their solutions, namely, No. 1, while they found it useful to retain it for its coating qualities in their weaker solutions, Nos. 3, 4, and 5? I am disposed to answer that question in the affirmative.

If what is said about gelatine in the provisional specification had been embodied in the completed specification, the complainers might have eliminated it by a disclaimer. But there was no room for a disclaimer as applicable to a provisional specification. The only course open to the complainers was to leave the gelatine out in the completed specification so far as applicable to solution No. 1, and that was what they did. It was a matter of indifference as to the practical result whether the gelatine was kept in or left out, for the gelatine neither did good nor harm in the use of solution No. 1. But, at sametime, it was proper to omit the superfluity, and I cannot see how its omission can be said to have extended the title of either of the specifications, or to have changed the substance of the patent from what it would otherwise have been. As I construe the patent, so far as now in dispute, it does not prevent Rattray, or any other patentee, from using bisulphite of lime except for the purpose of preserving meat, &c., in the same fresh state in which it was when killed. As regards that purpose the invention, when presented to the public for the first time, was presented in the shape in which it now stands in the completed specification. The public perfectly understood the nature of the solution No. 1, as well as the purpose to which it was to be applied and the manner of using it, and accordingly forthwith proceeded successfully to use it. I know no case in which such a variation between the terms of the provisional and completed specifications has been held to void an otherwise good patent; and, in the absence of any precedent, I am not for so deciding the point.

If the patent be good, the infringement, as I have said, is undoubted, so far as regards the use of the solution No. 1 for preserving meat for a long time in the same fresh state in which it was when killed, and to that extent I am of opinion that the prayer of the inferior Court petition ought to have been granted.

LORD MURE—It seems to be admitted in this

case, and I think it is proved, that the only contravention of these letters-patent by the respondents is that they used a solution of bisulphite of lime alone for the preservation of meat, and I do not think it is proved that they use any other of the five solutions. The only question which we have to dispose of is, Whether the petitioners are entitled to stop this use in respect of the patent founded on by them? Their right to do so can only arise in the event of their showing that they have a valid patent for the use of bisulphite of lime alone in any manner of way. Now, they claim, as I understand, that they have such a patent, and their specification no doubt does *ex facie* profess to claim the use of bisulphite of lime for the preservation of meat. This, I think, is clear from the passages in the specification which have been referred to, and it is made clear, further, from the statement of the claim itself and of its novelty, viz., "The use of solution No. 1, for preserving animal substances."

That being the case, the question is—Have the petitioners validly and effectually established this claim by their patent? I agree with your Lordship in the chair, and with the Sheriff, in holding that they have not. I do not mean to detain your Lordships by going over the details in the provisional specification and in the complete specification, which your Lordship has fully explained, but I would simply say that while I think the petitioners have distinctly claimed the use of bisulphite of lime itself, they have nowhere described the manner in which that invention is by itself to be used or performed, and I further think that the patent is bad in respect that the complete specification as regards the first head of the claim—the use of bisulphite of lime by itself—is in essential respects disconform to the provisional specification. The provisional specification is for a particular mode of using bisulphite of lime mixed with certain other things; but as your Lordship in the chair has so fully gone into the question of the disconformity between the provisional and complete specifications, and into the question whether there is any manner of using the bisulphite described in the complete specification, I shall simply say that I adopt your Lordship's view that in both these respects the patent before us is open to objection.

On the third point, while I agree with your Lordship that, having regard to our judgment on the first two points, it is not necessary to go into that, I am disposed to say that if it were necessary I should be inclined to agree in the result which has been arrived at by the Sheriff. There is not much evidence about the bisulphite of lime alone prior to 1866, but we have a distinct admission on record that between the 21st June 1861 and the date of the pursuer's specification, 27th June 1866, solutions of bisulphite of lime were publicly used for the preservation of animal substances by William Rattray, chemist, Aberdeen, but only in the manner described in Rattray's specification. Now, Rattray's specification consists of two things—(1) of a mode of preserving animal and vegetable matters by impregnating them with an aqueous solution of sulphurous acid, and (2) of the use of alkaline and earthy sulphites in packing preserved animal and vegetable matters in cases. It speaks of the second mode—the first, I think, does not apply—and says it relates to the preservation of

animal and vegetable matters in vessels or cases, and is more particularly applicable to the preservation of materials operated upon according to the first part of the invention. But Rattray does not restrict his invention to materials that have been operated upon according to that part. He says it is more particularly applicable to them; but he claims the use of bisulphite of lime for the preservation of materials operated upon in other ways than those explained in the first part of the specification; and when he comes to state his claim he says—" (2) The preserving of animal and vegetable substances by means of alkaline and earthy sulphites when packed in vessels or cases, as above described." That may be held to be a restriction of the claim; but he claims distinctly the preservation of animal and vegetable substances by means of alkaline and earthy sulphites. That being so, it rather occurs to me that if the petitioners' patent be, as they say it is, one for all or any modes of using bisulphite of lime for preserving animal substances, and if it had been dated in 1860 instead of in 1866, Rattray's patent would have been held to be an infringement of it, in so far as it claims the invention of bisulphite for the preservation of animal substances packed in cases; and if that be so, then the use of bisulphite of lime for the preservation of animal substances was disclosed, and it is admitted that it was publicly used in the way claimed by Rattray. Therefore the broad claim in the sense in which the petitioners put it is not a novelty, because a particular way of using bisulphite was known to the public, and, according to the admission, was used prior to the date of the petitioners' specification.

LORD SHAND—It is not without regret that I concur in thinking that judgment must be pronounced against the patentee in this case, for I think it is proved that the subject of the patent is one of great public utility, and that if the claim had been somewhat less sweeping, so as not to have covered the invention which is described in Rattray's specification, it would have been entirely novel. But unfortunately, as has frequently occurred in similar cases, the patentee has so framed his provisional and final specifications as to leave the letters-patent open to objections which are fatal to his case.

The objections which have been urged at the bar are three—(1) That the final specification describes an invention essentially different from that for which the letters-patent were given as that invention was described in the provisional specification; (2) that the patentee has failed to comply with the conditions of the letters-patent by not describing in the final specification the manner in which the invention is to be performed; and (3) that the invention, in the very wide terms of the claim as made in the final specification, is not novel, but was in prior use. Any one of these objections, if well-founded, is fatal to the letters-patent, and I am of opinion that all of them have been established. I concur generally in the careful and able judgment of the Sheriff, the late Mr Dickson, in this case. In one point he has fallen into error—I mean where he states that the provisional specification "is published in order that all persons interested may have an opportunity of opposing the application for the patent"; but,

with that exception, it appears to me that the Sheriff's observations on each of the three objections are sound, and that his reasoning is conclusive. While I concur also generally in the observations of your Lordships, I shall consider the different objections, because the case has been treated as one of great importance, and it is right that the parties should know the grounds in some detail upon which I have come to the opinion I have indicated.

The first objection is that the final specification describes an invention essentially different from that which is described in the provisional specification. A patentee gets his protection for the purpose of experimenting; and secondly, his letters-patent, only on compliance with that provision of the statute which requires the deposit of a provisional specification which shall describe the nature of his invention; and the letters-patent for the invention as so described are issued subject to the proviso which they contain that the patentee shall by his final specification describe not only the nature of the said invention—that is, the invention for which the letters-patent have been got, as described in the provisional specification—but also in what manner the invention is to be performed. The effect of the statutory provision and the letters-patent is to make a valid patent, but only if there be identity of invention as that invention is described in the two specifications. In short, the invention described in the final specification must be that for which the provisional specification was, and for which the letters-patent were, issued.

Before considering whether that be so in the present case, I shall make two observations. In the first place, I think that the question whether the invention as described in these different specifications is identical, is to be ascertained by a comparison of the one specification with the other; and secondly, I think the construction of those instruments as defining the nature of the invention is entirely for the Court, with the aid no doubt of evidence, if necessary, to explain—(1) the state of public knowledge, and (2) any technical or peculiar terms which may be found in the specifications. It is of importance to notice this latter point, because in the argument on behalf of the patentee it seemed to be assumed to some extent that the witnesses' interpretation must guide the Court. With that I do not agree.

That being so, I am of opinion that there is an essential difference between the nature of the invention in the two instruments—that there is no identity of invention,—that the invention in the final specification is different from that which had been described in the provisional specification—and so it is not the said invention, in the language of the letters-patent, for which the letters-patent were granted. This involves a comparison of the two specifications and the legal interpretation which they bear, giving, as I think we must, the most favourable construction for the patentee. Now, the provisional specification appears to me to describe an invention for the use of a compound agent. It is an invention, no doubt, for the preservation of animal substances, but in preserving animal substances the substance which the patentee says must be used in order to bring about the desired result is an agent consisting

of two different substances, the one gelatine, and the other, bisulphite of lime. But in the final specification, taking the construction which the patentee himself puts upon it, while the patent is for the same object, the agent is different, for there the agent is not an agent composed of two substances, but the single agent of bisulphite of lime. I do not think it necessary to go over the provisional specification in detail, but passing from the description of the object of the invention, which is correctly enough given, I find that when the patentee comes to describe the nature of it, his explanation is that a certain quantity of "commercial gelatine in boiling water" is the first substance used; with that there is combined a certain quantity of bisulphite of lime of a certain specific gravity; and these two things being mixed together form the one agent which is described as producing the result in this provisional specification. It has been suggested that the solution of gelatine is a mere mechanism in the invention; but it is a question on the construction of this patent whether the patentee has so put it, and I am of opinion that any one reading this specification according to its sound construction would be of opinion that the patentee considered the gelatine just as necessary as the bisulphite of lime in order to bring about the desired result. It is not presented as a mere medium—bisulphite of lime is itself a solution, and is a medium so far,—but it is presented as having two qualities which I think in the mind of the patentee were essential—an adhesive and a solidifying quality; and, as I read the invention as there described, I take it to come to this, that with that adhesive and solidifying liquid, combined with the antiseptic liquid, a certain result can be produced, and I see nothing to indicate that the patentee had even an idea that the result could be produced by one of those things alone. Let me suppose that the patentee had been examined as a witness in the course of the proof, and that he had said quite distinctly what must, I think, be assumed in this argument, that at the time when he lodged this provisional specification he was quite in ignorance that bisulphite of lime alone could bring about the desired result,—that he was of opinion that it was absolutely necessary in order to bring about that result that bisulphite of lime should be combined with a substance which had an adhesive and solidifying quality, and that having found a substance which would have that effect, the joint agent, according to his invention, would produce the desired result; that after six months he made the discovery that it was not necessary to combine two agents, but that one would be enough to produce the result. In that case, I am of opinion that that would be a great discovery and a new invention. I do not think that anything so vital as that could be covered by saying that it was a mere change in the manner of his invention as he had originally described it. It is true that provisional protection is given in order to enable a patentee to make experiments and improvements in the manner of using his invention, and if the discovery had been made that whereas the patentee formerly thought a thing could be used hot and now found it could be used cold, or if some slight modification of the original agent had been introduced, such as that the solution

might be mixed in somewhat different proportions, I think such things might be fairly covered by the final specification. But when you have anything so vital as it appears to be necessary before, I regard that as a new invention, which would require a new provisional specification and a different patent, and I concur in the observation made by your Lordships that the final specification is really a claim for a larger and wider discovery, essentially different from that which formed the subject of the provisional specification.

The next point maintained against the patent is, that the final specification fails to comply with the proviso in the letters-patent requiring that the manner of use shall be described. I am of opinion also that that objection is well founded. Reading the final specification in the most favourable way for the patentee, and taking it that he has given distinctly the object of his invention, and described the nature of it, the next question is, Has he described the manner of use? Now, he himself claims under this specification what I think was not indicated in the previous one,—the use of bisulphite of lime alone,—but I have found no directions whatever given as to how it is to be used. The single word he applies to that part of the patent is the word "employ." In order to make up for that, which is obviously a want in the patent, it appears from the evidence of Mr Mactear, of A. & W. Mactear, agents in Glasgow for the patentee—"We issued cards describing the mode of using it, one of which I now produce; and it was for the bisulphite of lime alone." Now, it is a very remarkable circumstance that the very blot in this patent, which is founded upon by those who are maintaining its validity as an argument in support of their view, is borne out by the fact that in order even for the trade to know how to use it the patentee has found it necessary to issue special directions. Lord Deas made the observation that according to Robertson's evidence they found no difficulty in applying it. I am not surprised that Robertson should say so, as he had been using it for a considerable time, and the trade had the benefit of a card with special instructions how to use it. What we find there is, "Important to fleshers," &c.—[reads]—exactly what Robertson says he did, and what I have no doubt he and the trade acquired in the directions given by the patentee, not where they should be given—in the specification—but in this card. And so I take it that this is a fatal objection.

It is said there may be inventions of such a class that it is not necessary that the patentee should describe the manner of using them. I know of no such class of inventions. The letters-patent make it a condition of the invention being valid that the manner of use shall be described; and, however simple it is, I think there must be some description. But here I think it is absolutely necessary that something of the kind should be done. It was impossible even for the trade to know without some assistance whether the invention was to be applied by keeping the meat in vessels or casks; or whether it was to be rubbed on, or what quantity was to be rubbed on; whether it was to be hot or cold; how often the process was to be repeated, or whether it was to be repeated; whether it was to be washed off or left on; and it is a remarkable thing that in the other parts of the specification as well as

in the provisional specification directions of that kind are given. Therefore, upon this part of the case, I am of opinion that the objection which has been urged is fatal. I may say, with reference to the illustration that has been put in regard to a patent medicine, it would occur to me that a patentee in such a case must not only mention the substances he proposed to use, and the proportions of those substances, but must describe some manner of using it. If he described that they were to be rolled up into a pill in certain quantities, and taken in that way, he has described a manner of use; but even in the case that is put, I think that in order to the safety of the public and the validity of the patent, some idea must be given of the number of pills and how often a person is in safety to take them—so in that case it would not be a sufficient direction to say, "Having made up your pill, then take it."

With regard to the remaining question, Whether this patent is objectionable on the ground of prior use? I do not think it necessary to rest the judgment any more than your Lordship has done upon that ground, because to my mind the reasons already given are quite sufficient and satisfactory for the disposal of the case. At the same time, as the parties have argued that point, I think it right to say that, looking to the very wide terms of the claim, the patent is objectionable on that ground also. It is admitted on the proof by minute that solution of bisulphite of lime was publicly used by William Rattray, chemist, Aberdeen, in the manner described in his specification. There is no qualification of that admission to the effect that the use of it was not useful; and with that admission there I must take it that bisulphite of lime was so used with the effect which Rattray's patent gives it. I agree with Lord Deas in thinking that Rattray's patent is in many respects essentially different from the present, and I think the patentee here might have had a perfectly good patent if he had framed it with a little more caution, because I agree in the view that bisulphite of lime, though publicly used by Rattray in the way there described, was not used as the sole preserving agent, or in the same way that the patentee here uses it. In Rattray's patent the use of bisulphite of lime was to preserve something that was already preserved. You must first get the meat treated by other substances till it assumes a special appearance and has a pungent smell, and it is meat in that condition to which bisulphite of lime is to be applied. But having got in that condition, Rattray did use bisulphite of lime, and did use it for the general purpose of preserving animal substances, though they had been subjected to previous treatment. Now, I put the question—The patentee having claimed here the use of bisulphite of lime (he puts his claim in the broadest possible terms), would Rattray thereafter, if this were a good patent, be entitled to go on using bisulphite of lime as he was doing for preserving animal substances? And it appears to me that if this is a good patent, in the very wide terms in which it is framed, Rattray would be open to the charge of being an infringer. I quite see that if this claim had been a little more guarded—if it had been so guarded as to be a claim limited to the use of bisulphite of lime from the beginning to the end of the process as the sole agent—it would have been a perfectly good patent, and there could have been no objection on the head of Rattray's

patent; but having chosen to make the claim so wide as to strike at all and every use of bisulphite of lime, I am of opinion that the claim is too wide, and covers something which is not novel but was known before.

Upon these grounds I concur in the judgment of the Sheriff.

The following interlocutor was pronounced:—

"Recal the interlocutors of the Sheriff-Substitute of 31st January 1876, and of the Sheriff of 9th June 1876: Find that the pursuer (appellant) is assignee of the letters-patent, No. 6/1 of process, which were granted to Henry Medlock and the pursuer, dated and sealed 27th June 1866, in pursuance of which the said Henry Medlock and the pursuer filed the specification, of which No. 6/12 of process is a certified printed copy: Find that during the years 1873 and 1874, or during part thereof, and during the currency of the said letters-patent, the defenders (respondents) did at their shops or premises in Gallowgate Street and Duke Street, Glasgow, use and employ for the preservation of animal substances bisulphite of lime, being the solution No. 1 claimed by the patentee under the first head of the claim in the complete specification: Find that between 21st June 1871 and the date of the pursuer's provisional specification, 27th June 1866, bisulphite of lime was publicly used for the preservation of animal substances by William Rattray, chemist, Aberdeen, in the manner described in the specification of his patent, No. 8/7 of process: Find that the complete specification describes the nature of the invention claimed under the said first head, but does not describe or ascertain the manner in which the said invention is to be performed: Find that in so far as regards the said first head of the claim the complete specification is disconform to the provisional specification, and claims a different invention from that which is disclosed in the provisional specification: Therefore find that the patent is not valid and effectual to secure to the patentee the invention, or supposed invention, used by the defenders as aforesaid: To this extent and effect sustain the defences, refuse the prayer of the petition, and decern: Find the defenders entitled to expenses both in the Sheriff Court and in this Court; allow accounts thereof to be given in; and remit the same when lodged to the Auditor to tax and report."

Counsel for Petitioners (Appellants)—Balfour—Mackintosh. Agents—Morison & Keith, S. S. C.
Counsel for Respondents—Asher—J. P. B. Robertson. Agents—Duncan & Black, W. S.