agreement with Short. The Bank certainly made claims beyond its legal rights, but not by way of inducing or procuring the society to break any contract with its clients. There is nothing to support the notion that the Bank supposed what it demanded would involve any breach of the society's contractual obligation with Short. The directors in their interviews with the Bank never hinted at such a result. The Bank's claim was *alio intuitu*. I prefer to deal with this phase because if the Bank was coercing the society into conduct which the bank knew would be a breach of contract I should be in a difficulty to find a legal justification for it. Therefore I do not put my judgment on justification. The view of *Street* J. is, as I read it, in substance that which I have expressed. I see no possible ground for supporting either of the counts, and think the appeal should be dismissed.

Appeal dismissed with costs.

Solicitors, for the appellant, *Links & Wragge*, Gunnedah, by *E. Pritchard Bassett & Co.*

Solicitors, for the respondents, *Leibius & Black.*

B. L.

Rev *Patents, Commissioner of v Lee* (1913) 16 CLR 138

[HIGH COURT OF AUSTRALIA.]

WILLIAM THOMAS LEE . . . . APPELLANT;

AND

THE COMMISSIONER OF PATENTS . . RESPONDENT.

ON APPEAL FROM THE COMMISSIONER OF PATENTS.

Patent — Invention — Improvements in the manufacture of charcoal and in kilns therefor—Subject matter of patent— Working directions—Process and new art —Patents Act 1903-1909 (*No.* 21 *of* 1903—*No.* 17 *of* 1909), *secs.* 2, 7.

The appellant applied for a patent for a new method or process of burning charcoal. The manufacture of charcoal had always, from the earliest times

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until the date of the present application, been accomplished with the assistance of a draught of air from below. This was believed indispensable, though means were adopted to control it. A prior patent contained improvements in the kiln consisting in a plurality of top vents and a system of radial earth channels under the kiln for the purpose of controlling and regulating the admission of air from below. That kiln had a bottom vent which could be opened or closed. Even if the vent was closed, the earth channels admitted the air. The Commissioner rejected the present application for the reason that it was nothing more than a working direction to close that vent. On the facts, however, the Court found that the subject matter of the present application was quite different, as the invented process consisted in an entire exclusion of air from below and its admission and control from the top, with different and better results in the charcoal burning.

Held, that the present process or method was not a mere working direction, but an undoubted exercise of the inventive faculty and good subject matter of a patent, and that the applicant's specification should have been accepted.

Held, further, that a process may be patentable, notwithstanding that the corporeal means of utilizing it are not new.

APPEAL from the decision of the Commissioner of Patents refusing an application by the appellant, William Thomas Lee, the assignee of one Oscar Wright, for a patent upon the grounds:—

1. That the subject matter set forth in this specification is a patentable invention and that the Commissioner should have accepted the application and complete specification and overruled the Examiner's report that "the alleged invention is a mere working direction for the manipulation of the draught in a charcoal retort."

2. That the Commissioner of Patents was in error in deciding that "what the applicant seeks to protect by letters patent are mere working directions for the use of an old machine for an old purpose."

3. That the Commissioner of Patents was in error in deciding that there is any lawful ground of objection to the acceptance of the said application and specification.

The specification stated that the invention related to the manufacture of charcoal and had been devised with the object of obtaining a maximum per centage of charcoal of high grade and uniform quality and a minimum per centage of ash.

Previously charcoal had been "burned" in covered heaps and in meilers and kilns and, in some cases, in chambers constructed

of iron sheets or plates, these plates being, in certain known constructions of the said chambers, lined with a refractory substance such as firebrick or asbestos millboard. The air vents and smoke vents had been variously arranged in these chambers, but the burning had always been with an air draught from the bottom. It was claimed that the present invention was characterized by the manner of manipulating the draughts during the burning process, whereby the improved effects before mentioned were obtained. According to the present invention a charge of wood was enclosed in a chamber which was entirely closed *except at the top*, where it was provided with one or more apertures fitted with slide plates or other closures by means of which the aperture areas might be varied at will. The charge was ignited at the bottom and the kiln head then covered, one or more of the apertures in it being opened only sufficiently to allow the necessary ingress of air and exit of gases of combustion to ensure continuance of combustion at the necessary degree of heat for the production of good charcoal without formation of ash.

The appellant declared his claim shortly as follows:—

1. This process of manufacture of charcoal, wherein wood is packed in a chamber with top and bottom closured vents, and is lighted at the bottom and the bottom vents then closed, and the direction and volume of the indraught and of the gaseous products of combustion are controlled by manipulating the top vent closures in such manner that the charge is burned regularly and combustion proceeds evenly from bottom to top whilst the indraught passes downwardly through the unburned portion of the charge and the gases of combustion pass upwardly through the same.

2. A process of burning charcoal characterized by the sealing of the bottom lighted charge in a chamber and the controlling of indraught by contact with the unburned charge and the pre-heating of the indraught by contact with the unburned charge and the pre-heating of the unburned charge by the contact of the gases of combustion therewith, substantially as described.

A prior patent, No. 15551/09, had been granted in respect of a kiln which, although provided with valves to regulate the air

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admitted at the bottom, contained also radial channels at its foot so that the burning was by air draught from below. Oscar Wright, the inventor of patent No. 15551/09, and also of the present suggested invention, stated the essential difference between No. 15551/09 and the present invention, to be as follows:—"The method of burning described in the present specification involves the abandonment of the central idea which distinguishes the earlier processes, and was based on an appreciation of the fact that access of air must be prohibited from material which has already undergone the coking process and the volatile elements removed from the chamber leaving the carbon of the timber behind in the form of charcoal. The removal of the already formed charcoal from contact with air was not possible or practicable by the removal of the charcoal from the kiln and I am not aware that such removal was ever suggested before. It was practically necessary to leave the whole charge in the kiln but to control the draught so that the incoming air would have access only to the volatizing products and would be excluded from the carbon. This I conceived could be accomplished by closing entirely the air inlets in the bottom of the chamber and admitting the air under control at the top of the charge only, the charge being first lighted at the bottom. A characteristically different effect was found to be obtained when this new process was adopted. In the burning operation air passes downward through the gradually heating charge above and feeds the fire from above only. When that fire tends to become intense it produces a corresponding magnitude of up draught and this up draught reacts against the incoming draught and chokes it back. The incoming and outgoing draughts therefore regulate each other, and it is found that the fire becomes self controlled to a very large extent. . . . Combustion proceeds upwardly and the oxygen contained in the incoming air is consumed at the top of the fire and does not reach deeper down in the kiln than the upper part of the fire zone. Consequently the already charred timber which is located below the fire is not affected by contact with fresh air and the carbon already produced is not reduced to ash. . . . In the new process a better volume and value of product is thus obtained, there is

better security for uniformity of the product, and the cost of production is less than before . . . The process becomes practically automatic. These results are different from the results obtained in the prior type of kiln. . . ."

The decision of the Commissioner of Patents was as follows:—

"The Examiner's objection is that the alleged invention does not consist in a new method or process of burning charcoal, but is merely a working direction for the manipulation of the draught in a charcoal retort. The Examiner further states that a charcoal retort having a number of openings at the top and a charging door at or near the bottom is not new, as evidenced by Commonwealth specification No. 15551/09.

"It is perfectly clear from the specification, wherein the applicant says 'The present invention is characterized by the manner of manipulating the draughts during the burning process whereby the improved effects before mentioned are attained,' and by the arguments submitted, that he does not claim an apparatus as a whole or in detail. I have given this specification and the statements in support of it very careful consideration, and am of opinion that, if the contentions put forward could sustain an application for letters patent, the result would be in this case to restrict the use by the possessor of the appliance shown and described in Commonwealth specification No. 15551/09 to the manner therein described. That is to say, he would not be permitted or have any right to use the appliance or apparatus for the purpose of producing charcoal if he sealed the bottom of the retort to prevent the inflow of air at all stages of the operation of burning. I concur with the view of the Examiner that what the applicant seeks to protect by letters patent are mere working directions for the use of an old machine for an old purpose, and accordingly refuse to accept the complete specification."

From this decision the appellant now appealed to the High Court.

Flannery, for the appellant. The invention is the discovery that, if an apparatus of this description for burning charcoal is

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used, the bottom vent should be kept closed. It is using an old machine and applying it to an old object but in a new way. The idea of preventing air from going through the bottom and only admitting it at the top was new under the Commissioner's finding. Novelty must be assumed unless No. 15551/09 is an anticipation: *In re Cooper's Patent* (1).

[ISAACS J.—You require discovery *plus* something else.]

Every idea until the present invention involved an undercurrent.

[ISAACS J.—The point is whether there is anything more than the shutting of the vent door mentioned in No. 15551 ?]

There is a radical difference in the idea and in the process. The former system caused great waste, and the inventor conceived that the oxygen should come in at the top and be distributed in a certain way. This is the discovery, and to be patentable it must be translated into an invention. The discoverer said "I will take my retort and use it in a different way."

[ISAACS J.—If he finds nature does something if he uses something others use in a different way from that in which they use it, is this the subject of a patent ?]

Yes: *Automatic Coal Gas Retort Co. Ltd.* v. *Mayor &c. of Salford* (2); *Frost on Patents*, 4th ed., vol. I., pp. 59-62, 66. In a claim for a process there is no need for a mechanical form. The use of an old apparatus in a new way is not necessarily unpatentable. Process has been claimed as subject matter ever since the case of *Crane* v. *Price* (3).

If the inventor has an idea and the means of carrying it out, that is good subject matter for a patent: *Boulton* v. *Bull* (4).

[ISAACS J.—A new method is patentable if an advantageous result is obtained.]

He cited also:—*Partington* v. *Hartlepools Pulp and Paper Co. Ltd.* (5); *Dowling* v. *Billington* (6); *Forsyth* v. *Riviere* (7); *Hartley's Patent* (8); *Curtis* v. *Platt* (9); *Dangerfield v. Jones* (10);

(1) 19 R.P.C., 53.
(2) 14 R.P.C., 450.
(3) 4 Man. & G., 580.
(4) 2 Bl. H., 463.
(5) 12 R.P.C., 295.
(6) 7 R.P.C., 191.
(7) 1 Carp. Pat. Cas., 401.
(8) 1 Web. Pat. Cas., 54.
(9) 3 Ch. D., 135 *n*.
(10) 13 L.T.N.S., 142.

Adamant Stone and Paving Co. Ltd. v. *Corporation of Liverpool* (1); *Halsbury's Laws of England*, vol. 22, article "Patents."

[ISAACS J. Am I not bound by *Rogers* v. *Commissioner of Patents* (2)?]

No. *Rogers's Case* (2) turns on the facts, and the law laid down in the cases cited was accepted by the Court there.

[ISAACS J. referred to *Schwer* v. *Fulham & Robinson* (3).]

H. E. Manning, for the Commissioner of Patents. The idea here is not the subject matter of a patent. There must be invention in the means as well as in the discovery. There must be a new art. Here there is none.

In the case of a valuable scientific discovery it requires less novelty to support it.

[ISAACS J.—It is not a question of more or less. The Commissioner's objection is that it is a mere working direction.]

The Court should take judicial notice that charcoal will always burn from the top. He cited *Kay* v. *Marshall* (4); *Lyon* v. *Goddard* (5); *Moore and Hesketh* v. *Phillips* (6).

[ISAACS J.—At this stage there should be as little interruption to the patent as possible, if it is a fair fighting question. To hold otherwise would be injurious to the policy of the Act, which encourages inventors. If rejected, there is an end to it for ever owing to publication.]

The purpose here is analogous to the former method. There must be a new method of operating the machine: *Ralston* v. *Smith* (7).

[ISAACS J.—Is there not a new method here, namely, excluding the air from below?]

This case is covered by *Rogers* v. *Commissioner of Patents* (8); *In re Lane Fox's Patent* (9).

Flannery in reply, cited *Longbottom* v. *Shaw* (10).

Cur. adv. vult.

(1) 14 R.P.C., 11, 264.
(2) 10 C.L.R., 701.
(3) 11 C.L.R., 249.
(4) 1 My. & Cr., 373.
(5) 10 R.P.C., 121, 334.
(6) 4 C.L.R., 1411, at p. 1425.
(7) 11 H.L.C., 223, at pp. 250, 255.
(8) 10 C.L.R., 701, at p. 707.
(9) 9 R.P.C., 411.
(10) 8 R.P.C., 333.

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ISAACS J. read the following judgment:—Appeal under sec. 47 of the *Patents Act* 1903-1909 from the refusal of the Commissioner to accept the applicant's complete specification.

The claim is for a new method or process of burning charcoal, and is based on the following circumstances. According to the facts as they appear at present or have been assumed, the manufacture of charcoal whether absolutely in the open air, or in a meiler or a kiln, has always, from the earliest times until the date of the present application, been conducted with the assistance of a draught of air from below. It has hitherto been considered by all who have practised the art, that the under current of air is indispensable to the success of the operation. Means have been adopted to control the draught, and the latest prior device was Commonwealth Patent No. 15,551 in 1909. That patent is for an improved kiln or retort, the improvements consisting of a plurality of top vents to regulate more efficiently and simply the upward draught, and a system of radial earth channels under the kiln and extending to the atmosphere for the purpose of controlling and regulating the admission of air from below. That kiln has a bottom vent which can be opened or closed at will, and on this fact the Commissioner has based his rejection, taking the view that application No. 2021 is nothing more than a working direction to close that vent.

The substance of the matter however is quite otherwise.

Even if that vent be closed the radial earth channels admit the currents of air from below until the whole operation of burning is over, and then they are closed together with the top vents to allow the retort and the material therein to cool off. The essence of the operation up to the present application was that, for the purpose and during the operation of burning, some admission of air from below was essential.

One defect always existed, namely, that as the combustion of the wood commenced in the lower portion of the stack, and proceeded gradually upwards, the carbon after it had reached the stage of true charcoal in its best form, was constantly while in a glowing state subjected to the action of the oxygen rising upwards to feed the flame of the newly ignited wood above, and the result of the constant contact of the oxygen with this

glowing charcoal was to reduce some of the latter to ash, which meant so much loss of useful product.

This disadvantage, though of course well known, was apparently considered inseparable from the operation, because it was never imagined that the cause of the defect—namely, the upward draught—could be altogether dispensed with.

Such a course never occurred to the mind of any one, until at last Oscar Wright discovered that the upward draught was not indispensable, and that by entirely excluding it a better result could be obtained, because all the advantages of the former system remained and this defect of conversion of good commercial charcoal to ash would be obviated.

The principle—if it may be so called—at all events the idea is revolutionary. The elimination of what was before considered indispensable is found to be an advantage, by curing what was previously understood to be an incurable though serious defect.

As a matter of fact, I cannot doubt there was considerable originality or ingenuity in the conception, as applied to the manufacture of charcoal; in other words there was an undoubted exercise of the inventive faculty.

Then having conceived the idea, Wright proceeded to show how it could be carried out—simply by having no lower vent or entrance for air at all for the purpose of carbonization. In the words of the complete specification, "a charge of wood is enclosed in a chamber which is entirely closed except at the top, where it is provided with one or more apertures," &c.

There is in fact a door or vent at the bottom, but it is used only for the purpose of igniting the charge, and then it is closed and kept closed during the whole operation. But it is, as stated in the specification, only "for that purpose," that is the original ignition.

The Commissioner took the view that closing the bottom vent was a mere working direction for the manipulation of the draught. But according to the facts I have mentioned it is something quite different. It does not manipulate the draught; it abolishes it. It is not a working direction, because it is entirely contrary to the prior system of working, and no operator previously would have considered it within the limits of practical

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charcoal burning to cut off entirely the access of the lower air. In these circumstances, it appears to me the applicant's specification should not have been refused for the reason given by the Commissioner.

Mr. *Manning* sought to show, alternatively, that there was no subject matter. But in this case it all comes round to the same thing. The essential point to remember is the complete elimination of an upward draught, with the resulting remedying of a defect heretofore considered incurable. That is sufficient subject-matter.

A process or method is patentable where, as here, it involves the practical operation of an inventive idea. In *Boulton* v. *Bull* (1) *Heath* J. said:—"The method is a principle reduced to practice," and then *Buller* J. said (2):—"It is necessary to inquire, what is meant by a principle reduced into practice. It can only mean a practice founded on principle, and that practice is the thing done or made, or in other words the *manufacture* which is invented." So *Eyre* L.C.J. said (3):—"The word '*manufacture*' in the statute . . . applied not only to things made, but to the *practice of making*, to principles carried into practice in a new manner, to new results of principles carried into practice . . . Under the *practice of making* we may class all new artificial manners of operating with the hand, or with instruments in common use, new processes in any art producing effects useful to the public." The learned Lord Chief Justice added (4), speaking as early as 1795:—"Probably I do not overrate it when I state that two-thirds, I believe I might say three-fourths, of all patents granted since the statute passed, are for *methods* of *operating* and of manufacturing, producing no new substances and employing no new machinery." See also *per Tindal* L.C.J. in *Crane* v. *Price* (5). Mr. *Manning* urged that there must be not only inventive originality in the idea, but also invention in the corporeal way it was carried out. That view was expressly rejected by the Court of Appeal in *Hickton's Patent Syndicate* v. *Patents and Machine Improvements Co. Ltd.* (6), and the

(1) 2 Bl. H., 463, at p. 481.
(2) 2 Bl. H., 463, at p. 486.
(3) 2 Bl. H., 463, at p. 492.
(4) 2 Bl. H., 463, at p. 494.
(5) 4 Man. & Gr., 580, at p. 603.
(6) 26 R.P.C., 339, at p. 347.

proposition was definitely and clearly enunciated that, if you state an inventive idea and also show a means of carrying it into effect, that is patentable subject matter. *Eyre* L.C.J. in *Boulton* v. *Bull* (1) had long before said so much. His words were:— "Undoubtedly there can be no patent for a mere principle, but for a principle so far embodied and connected with corporeal substances, as to be in a *condition to act*, and to *produce effects* in any art, trade, mystery, or manual occupation, I think there may be a patent." I am not aware of any authority to the contrary. It was said that *Rogers's Case* (2) is opposed to this view, but I do not think so. The majority of the Court came—as I think—to the conclusion of fact that there was no invention in either the idea or the mode of utilizing it. So far as at present appears, there being in this case disclosed to the world a meritorious and inventive idea coupled with a practical way of utilizing it, a process is established which is patentable, notwithstanding the corporeal means of utilization are old.

The appeal is therefore allowed, and the decision of the Court is that the application and specification shall be accepted, excising the third claim which was abandoned before the Commissioner, and so treated by him.

Appeal allowed. Application and specification to be accepted, excising the third claim.

Solicitor, for the appellant, *B. A. McBride.*

Solicitor, for the respondent, *C. Powers*, Crown Solicitor for the Commonwealth.

(1) 2 Bl. H., 463, at p. 495.

(2) 10 C.L.R., 701.