BETWEEN:

HIS MAJESTY THE KING.....PLAINTIFF;

AND

THE SMITH INCUBATOR COMPANY AND THE BUCKEYE INCUBATOR COMPANY .....DEFENDANTS.

1935
Oct. 22 & 23
1936
Jan. 29

Patents—Action to impeach—Patent Act—Exchequer Court Act—Exchequer Court Rule 11—Anticipation— Prior art—Prior user—Validity —Subject matter—Invention—Burden of proof.

Held: That the present action to impeach and annul a patent of invention instituted in this Court by Information in the name of the Attorney-General of Canada was properly instituted under s. 60 of The Patent Act, 25-26 Geo. V. c. 32, and rule 11 of The General Rules and Orders of this Court.

2. That the grant of letters patent is *prima facie* evidence that the patentee invented the device or process covered by the patent, and the burden of proof rests upon the person seeking to destroy the patent. The plaintiff herein did not succeed in proving beyond a doubt anticipation of the patent in suit.

3. That narrowness and simplicity of invention will not invalidate a patent. Here there was that scintilla of invention which is sufficient to render the patent valid.

INFORMATION by the Attorney-General of Canada to set aside certain letters patent for invention granted to one Samuel B. Smith and later transferred to defendant, The Smith Incubator Company.

(1) (1870) 1 P.E.I. 316.

1935

THE KING v. SMITH INCUBATOR CO., ET AL.

The action was tried before the Honourable Mr. Justice Angers, at Ottawa.

E. G. Gowling for the Plaintiff.

R. S. Smart, K.C. and *O. M. Biggar, K.C.* for Defendants.

The facts and questions of law raised are stated in the reasons for judgment.

ANGERS J., now (January 29, 1936) delivered the following judgment:

This is an action instituted in the name of the Attorney-General of Canada to impeach a patent of invention number 217,777 issued to Samuel B. Smith on April 18, 1922, for an alleged new and useful improvement in incubators.

The defendant Smith Incubator Company is the owner of said patent as assignee of said Samuel B. Smith and the defendant The Buckeye Incubator Company is a licensee.

The action seems to me properly instituted under section 37 of the Patent Act, R.S.C. 1927, chap. 150 (now section 60 of The Patent Act, 1935, 25-26 Geo. V, chap. 32) and subsection (*b*) of section 22 and subsection (*b*) of section 30 of the Exchequer Court Act; the mode of procedure is regulated by rule 11 of the General Rules and Orders of this Court.

The grounds of invalidity raised in the particulars of objection may be briefly stated as follows:

the invention set forth in the patent, if any, was not invented by the alleged inventor thereof but by one or other of the patentees or inventors referred to in the patents and publications mentioned in schedule 1;

the alleged invention was not new; it was known and used by others before the date on which it is alleged to have been made as appears from (*a*) the common knowledge in the art at the said date; (*b*) the prior knowledge of the patentees or inventors named in the patents and publications set forth in schedule 1; (*c*) the use of the devices described in the patents and publications aforesaid;

the alleged invention was patented and described in publications and was in public use prior to the application for the said patent for a longer period than was allowed by the Patent Act;

the letters patent claim more than the applicant invented, if he invented anything, in that they embrace devices described in the patents and publications referred to in schedule 1;

the specification of said letters patent is ambiguous and does not correctly describe the invention and its use in that it incorrectly states the temperature at which the incubator must operate and the air currents do not travel through the incubator in the manner indicated;

the defendants imported the subject matter of said patent into Canada for more than one year subsequent to the date of the issue thereof;

the alleged invention described in the specification is analogous to the device described in United States patent No. 553,723 issued on January 28, 1896, to one Proctor and used for the purposes therein described.

Schedule 1 above mentioned contains a list of 19 American patents and one German patent as well as a list of various publications and it refers to prior user, particularly that of Milo M. Hastings, of Muskogee, Oklahoma, commenced in 1912.

[The learned Judge referred to the specifications and certain evidence adduced respecting artificial incubation and continued.]

In order to establish anticipation the plaintiff relied on eight patents, certain publications and the testimony of William R. Graham, professor of poultry at the Ontario Agricultural College of Guelph, and of one Milo Hastings.

The Guerin patent, number 3019, dated March 30, 1843, is for a method of rearing the chickens, after the hatching of the eggs, in an oven. A perusal of Guerin's patent shows that it does not resemble that of Smith, except perhaps in some unimportant details. Moreover it is not in the same art: it has much more to do with the rearing of chickens than with the hatching of eggs.

Winkler's patent, number 286,756, dated October 16, 1883, is for " certain new and useful improvements in the class of incubators employing an endless travelling conveyer for receiving and advancing the eggs." It has no analogy with the patent in suit; it applies to a conveyer, in an incubator, for receiving eggs, consisting of spaced slats between which the eggs lie and to the means of advancing the conveyer periodically in combination with heating devices arranged to give the heat requisite at all points during the progress of incubation of the eggs.

The Proctor patent, issued on January 28, 1896, bearing number 553,723, is for an apparatus for ordering tobacco. The tobacco is placed in a closed chamber and humidified air is circulated around it so as to keep it in a moistened condition which will permit of its handling without danger of crushing the leaf. Structurally the apparatus is to a large extent similar to the Smith incubator; it is, however, in an entirely different class and is too remote from the problem of hatching eggs to even suggest a comparison.

The Scott patent, number 709,650, dated September 23, 1902, the Boyd patent, number 828,181, dated August 7, 1906, and the Koons patent, number 916,454, dated March 30, 1909, show different types of incubators in which there

1935
THE KING
v.
SMITH INCUBATOR CO., ET AL.
Angers J.

is no forced circulation of air. The circulation is obtained by convection currents. The machines provide outlets for heated air and inlets for fresh air. The purpose of these outlets and inlets is not solely ventilation but also, and perhaps chiefly, air circulation. It is hardly necessary to state that the circulation is obtained by reason of the difference of density and weight of the heated air and of the cold air. Furthermore, the apparatus covered by these three patents do not appear from a perusal of the specifications and drawings to be suitable for multiple superimposed tiers of egg trays.

The Fullington patent, number 1,205,445, dated November 21, 1916, relates to incubators and has particular reference to an attachment for the purpose of automatically regulating the temperature at which the incubator must be kept. After examining the specifications and drawings, I do not think that the Fullington device has much in common with the Smith incubator. True it is that the Fullington machine has a forced circulation of heated air by means of a fan intermittently actuated, but the circulation is materially different from that in the Smith incubator.

The German patent, number 155,917, to Stulik, dated November 7, 1901, also relates to an incubator. It deals with staged incubation, which is perhaps the only point of similarity with the patent in suit. There is in the Stulik incubator no forced circulation of air. The heated air is drawn in from the bottom of the egg chamber and it ascends by convection through the trays of eggs and goes out through the openings at the top of the chamber.

I do not think that any of the patents above referred to constitute an anticipation of the patent in suit.

The publications on which the plantiff relied to prove anticipation and common knowledge are the following:

The Dollar Hen, a book written by Milo Hastings and published in New York in 1909, pages 103 to 107, the chapter entitled "Incubation—The future method of incubation";

Poultry Culture, published in Topeka, Kansas, issue of February 1912, pages 7, 14 and 15, containing an article by Ralph H. Searle, associate editor, bearing the title "The Mammoth Incubator out-mammothed" and the sub-title

"How Milo Hastings, a Kansas product, is startling the world with his big chick factory" (included in binder exhibit 2);

Technical World, of April 1913, pages 248 and 249, on which appears an article by George F. Paul, intituled "Hatching chickens by wholesale" (included in binder exhibit 2);

Artificial Incubating and Brooding, published by The Reliable Poultry Journal Publishing Company, November 5, 1898, at Quincy, Ill., pages 108, 109 and 110, containing an article under the caption "The origin of the Cyphers incubator" (included in binder exhibit 2);

An article entitled "Humidity in relation to incubation" written by Wm. H. Day, professor in physics, published in the Bulletin of the Ontario Department of Agriculture, Ontario Agricultural College, Guelph, Ont.;

Various articles and photographs dealing with the incubator built by Milo Hastings at Muskogee, Oklahoma, in the fall of 1911 and spring of 1912.

In his article "The Dollar Hen" Milo Hastings foresees the possibility of large hatcheries and describes summarily the plan of a new type of incubator. The description, which is rather indefinite, refers particularly to a process for maintaining an even temperature and for regulating the air moisture in the different parts of the hatching room. Concerning temperature the description merely says that its

> regulation is by means of air heated (or cooled as the case may be) outside of the egg rooms and forced into the egg room by a motor driven cone fan, maintaining a steady current of air, the rate of movement of which may be varied at will.

Further on, with regard to air moisture, the article says:

> The means by which the air moisture is regulated is similar to that used in up-to-date cold storage plants where the air is made moist by sprinkling and dried with deliquescent salts. The regulation of vapour pressure, like that of temperature, may be electrically moved dampers which switch a greater or less proportion of the incoming current to the sprinkler or dryer as the case may be.

It seems obvious to me that, although Hastings had, at the time he wrote his book, realized the necessity of regulating the temperature and the moisture in the incubator, he only had a vague notion of the manner in which this end could be attained. I think that Hastings' book, in so far as common knowledge of the art is concerned, may be disregarded.

1935

THE KING v. SMITH INCUBATOR CO., ET AL.

Angers J.

The definition of the Hastings incubator contained in the article of Poultry Culture, viz. "The Mammoth Incubator out-mammothed," although somewhat more detailed and accurate than that found in the chapter of The Dollar Hen dealing with incubation, is not definite nor specific enough to permit one skilled in the art to reproduce the incubator in question. Besides the process of air circulation as well as the method of turning the eggs differ materially from those used in the Smith incubator. I do not think that the article in question can be considered as anticipatory of the patent in suit.

The same remarks apply to the article which appeared in the Technical World of April 1913 under the heading "Hatching chickens by wholesale." As the previous one it refers to a current or draft of air driven by a centrifugal fan through the egg chamber, the purpose of which is to keep it at an even temperature throughout. The article alludes to an improvement by which "compartments holding 10,000 eggs are swung on a pivot and the eggs turned by inverting the entire compartment," but the manner in which this so-called improvement is operated is not clearly disclosed; whether it resembles the method used in the Smith incubator is impossible to say.

Next is the article published in Artificial Incubating and Brooding, dealing with the Origin of the Cyphers Incubator.

Cyphers, in the fall of 1895 and the winter and spring of 1896 built on the farm of one Truslow, at Stroudsburg, Pa., the incubator which is described in the above article. This incubator had a capacity of 20,000 eggs; it was, according to Professor Graham, the first attempt on this continent to build a room hatchery. The prior use of Cyphers is not pleaded and the description of the Cyphers machine was only brought in evidence by way of illustration. Be that as it may, after perusing carefully the article intituled "The Origin of the Cyphers Incubator" and the deposition of Professor Graham, I am satisfied that the Cyphers incubator cannot be regarded as being an anticipation of the Smith incubator. The method of air circulation in particular was different.

The article by Professor Day on "Humidity in relation to incubation" deals with the method of determining the quantity of moisture in the air and the means of regulating

it. It is indeed interesting and instructive, but it deals with only one of the elements required in an incubator. The necessity of maintaining a sufficient quantity of moisture in the incubator was recognized long prior to 1915. Methods of producing and regulating it, however, differed.

Coming now to the objection based on prior use, I may note forthwith that the evidence adduced in this connection deals exclusively with the alleged prior user of Milo Hastings, commenced in the year 1912.

[The learned Judge considered in detail the evidence of Milo Hastings adduced at trial and then continued.]

After a careful study of Hastings' experiments, I have reached the conclusion that they do not constitute an anticipation of the patent in suit. His apparatus and process differed from Smith's in many particulars. I may say incidentally, however, that I am inclined to believe that Hastings had conceived something involving novelty and in consequence patentable.

Let us now consider the Smith patent with a view to ascertaining whether it contains any subject matter involving invention. I must say from the outset that I have had some difficulty in determining the exact element of patentability in the patent in suit.

As I have already noted, incubation of eggs is an ancient art; to hatch eggs successfully it has been known for years that four conditions are necessary:

to maintain in the incubator a uniform temperature of between 100° and 105° Fahrenheit;

to supply a sufficient degree of moisture so that the eggs will not be dried out;

to provide proper ventilation, particularly in the last stages of incubation;

to turn the eggs once or twice daily from the fourth to the eighteenth day of the period of incubation.

I do not think that there is any element of discovery on the part of Smith in having "restricted openings" for the escape of foul air and the intake of fresh air. This is the ordinary and common process of ventilation; the fact of applying it in an incubator does not change its nature.

Moreover, I do not think that there is any element of discovery in conserving the humidity of the air in the

1935

THE KING v. SMITH INCUBATOR CO. ET AL.

Angers J.

incubator by introducing in the column of air therein circulated fresh air through a door or other openings placed near the fan or blower.

The principle of air circulation in a room to maintain uniformity of temperature is not new; it is a law of nature. The method of utilizing it, however, may involve novelty; there is, I believe, invention in the manner in which the air is driven and circulated through the egg chambers in the Smith incubator.

There is also invention, to my mind, perhaps to a lesser degree, in the arrangement of the tilting racks whereby the eggs may be turned conveniently and with a considerable saving of time and labour.

The invention is undoubtedly small and simple, but smallness and simplicity are not necessarily an objection and will not prevent a patent being good; a mere scintilla of invention is sufficient: *Riekmann* v. *Thierry* (1); *Hinks & Son* v. *Safety Lighting Co.* (2); *Vickers, Sons & Co. Ltd.* v. *Siddell* (3); *Boyce* v. *Morris Motors Ltd.* (4); *Samuel Parkes & Co. Ltd.* v. *Cocker Brothers Ltd.* (5); *Giusti Patents and Engineering Works Ltd.* v. *Rees* (6).

It is hardly necessary to state that the burden of proof rested on plantiff. The grant of letters patent is *prima facie* evidence that the patentee invented the device or process covered by the patent. Where it is sought to destroy a patent, the case must be made out in the clearest way possible. Every reasonable doubt must be resolved against the party attacking the patent: *In the Matter of Lowndes' Patent* (7); *Boyce* v. *Morris Motors Ltd.* (8); *W. H. Cords et al* v. *Steelcraft Piston Ring Co. et al* (9); *Cantrell* v. *Wallick* (10); *The Barbed Wire Patent* (11).

The plaintiff has not succeeded in proving beyond doubt anticipation of the patent in suit.

The United States patent No. 1,262,860, which is identical to the patent in suit, was the subject of a considerable amount of litigation in the United States; it was declared valid in, among others, the following cases: *Buckeye Incu-*

(1) (1897) 14 R.P.C. 105 at 115.
(2) (1876-7) 4 Ch.D. 607 at 615 (in fine).
(3) (1890) 7 R.P.C. 292 at 304.
(4) (1927) 44 R.P.C. 105 at 127.
(5) (1929) 46 R.P.C. 241 at 248 and 250.
(6) (1923) 40 R.P.C. 206 at 215.
(7) (1928) 45 R.P.C. 48 at 57.
(8) (1927) 44 R.P.C. 105 at 135.
(9) (1935) Ex. C.R. 38 at 49.
(10) (1885) 117 U.S. 689 at 695.
(11) (1891) 143 U.S. 275 at 284.

bator Co. v. *Wolf* (1), affirmed (2); *Buckeye Incubator Co.* v. *Cooley* (3); *Buckeye Incubator Co.* v. *Petersime* (4); *Buckeye Incubator Co.* v. *Blum* (5), affirmed (6); *Buckeye Incubator Co.* v. *Hillpot* (7), affirmed (8); *Miller Hatcheries Inc.* v. *Buckeye Incubator Co.* (9); *Boling* v. *Buckeye Incubator Co.* (10), reversed on other grounds (11); *Waxham* v. *Smith* (12); *Snow* v. *Smith* (13), reversed on question of infringement (14); *Smith* v. *Jensma* (15).

Although I am not bound by these decisions, I have given them due consideration. As observed by counsel, if these decisions do not constitute precedents, they contain very able reasoning by judges learned in the law. The inconvenience, however, is that it is difficult, not to say impossible, in most of these cases to ascertain what evidence was adduced against the validity of the patent. In some of the cases the endeavours and experiments of Hastings were relied upon, wholly or partly, by the party seeking to impeach the patent, as evidence of the state of the prior art; in other cases they seem to have been ignored or disregarded. Again in some of the cases Hastings was examined as witness and in others he did not appear. It would be difficult and somewhat hazardous in the circumstances to found an opinion upon these decisions. Nevertheless the judgment of the Circuit Court of Appeals, Third Circuit (16), which, on the question of the validity of the United States patent, confirmed the judgment of the District Court of New Jersey (unreported), is of some assistance. It appears from the report that the use by the public relied on included, among others, Hastings' early work in 1908, Davis' hatchery, Hastings' application for a patent, Hastings' Muskogee hatchery and Hastings' Port O'Connor hatchery. Hastings moreover testified. Woolley, J., who delivered the judgment of the Circuit Court of Appeals, made the following observations:

Hastings and Smith, the patentee, no doubt saw the same incubating problems, but Smith pursued a solution directly opposite that of Hastings.

(1) (1923) 291 Fed. 253.
(2) (1924) 296 Fed. 680.
(3) (1927) 17 Fed. (2nd) 453.
(4) (1927) 19 Fed. (2nd) 721.
(5) (1927) 17 Fed. (2nd) 456.
(6) (1928) 27 Fed. (2nd) 333.
(7) (1928) 22 Fed. (2nd) 855.
(8) (1928) 24 Fed. (2nd) 341.
(9) (1930) 41 Fed. (2nd) 619.
(10) (1929) 33 Fed. (2nd) 347.
(11) (1931) 46 Fed. (2nd) 965.
(12) (1934) 70 Fed. (2nd) 457.
(13) (1934) 70 Fed. (2nd) 564.
(14) (1935) 294 U.S., 1.
(15) (1933) 1 Fed. Supp., 999.
(16) (1927) 17 Fed. (2nd) 453.

1935

THE KING v. SMITH INCUBATOR CO., ET AL.

Angers J.

He, too, set eggs in trays arranged in tiers and enclosed them in a chamber and he also provided artificially heated air by a motor driven fan positioned at the top of the chamber, but he established an air current and regulated its direction by arranging the tiers of trays in two columns parallel with and separated from each other so as to form between them a central corridor and placed partitions or curtains from the top to a short distance from the bottom of the tiers and directed the air current downwardly not through the eggs but through the corridor where it mushroomed on the floor, spread beneath the tiers, ascended through the egg trays and escaped through definitely arranged air outlets. By so controlling the current of heated air Smith claims, and we think correctly, that he is enabled to attain uniformity of temperature in its movement, first, through the old heat radiating eggs, and next, as it ascends, to the newer heat absorbing eggs, it being necessary that the temperature of the former should be maintained at a point not higher than 105° and that of the latter at a point not below 100°. Moreover, instead of drawing out trays to turn the eggs and then shoving them back, the trays are tilted in a fashion and to a degree simulating the egg turning movement of the hen. We think this arrangement involves invention. There is not only a marked but an intelligent difference between Smith's conception and the prior art and it is the difference between success and failure, or at least between success and feeble advances. It is not a great invention, yet it is one that solved a problem and it solved it in a new way and with such utility that it has become a commercial success which, measured by the amount of sales made and royalties paid, is really remarkable.

These remarks appear to me right and appropriate.

However it may be, I have, not unhesitatingly I must admit, reached the conclusion, based on the evidence adduced before me, that the patent in suit is valid.

There will be judgment declaring the patent valid and dismissing the action.

The defendants will have their costs against plaintiff.

Judgment accordingly.

The case of *The Smith Incubator Company* v. *Albert Seiling* was tried before the Honourable Mr. Justice Angers immediately following the case reported. The action was one for infringement and was dismissed by the learned Judge who found that the method used by the defendant for the circulation of heated air in the incubator and the tilting of the eggs was quite different from that disclosed in the Smith patent.