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APPELLANT;	POPE APPLIANCE CORPORATION (PLAINTIFF)	*Nov. 8, 9. *Dec. 16.
	AND	
RESPONDENT.	THE SPANISH RIVER PULP AND PAPER MILLS, LIMITED (DEFENDANT)	
	POPE APPLIANCE CORPORATION)	
APPELLANT;	(PLAINTIFF)	
	AND	
RESPONDENT.	ABITIBI POWER AND PAPER COM- PANY, LIMITED (DEFENDANT)	•

ON APPEAL FROM THE EXCHEQUER COURT OF CANADA

Patent—Invalidity—Lack of invention—Combination of old elements for old purpose

The judgment of the Exchequer Court of Canada, [1927] Ex. C.R. 28, dismissing the plaintiff's action for infringement of patent, was affirmed, on the ground that the plaintiff's patent (for an appliance for carrying, in a paper manufacturing machine, the paper from the drying rolls to and through the calenders) was invalid, because the device, however useful, did not involve invention; the patentee's claim rested on a combination, all the elements of which, and the very purpose for which it was designed, were old and well-known in the art; there was no room for novelty, except possibly in certain features which were not of a nature to justify the patentee's claim.

<sup>\*</sup>Present:—Anglin C.J.C. and Duff, Mignault, Rinfret and Smith JJ.

APPEAL by the plaintiff from the judgment of Maclean J., President of the Exchequer Court of Canada, dismissing its actions against the respective defendants for infringement of patent (1), the judgment resting on the ground of invalidity of the patent. The appeal was dismissed with costs.

- O. M. Biggar K.C. and R. S. Smart K.C. for the appellant.
- A. W. Anglin K.C. and J. G. Gibson for the respondent The Spanish River Pulp and Paper Mills, Limited.

Christopher C. Robinson K.C. and L. A. Landriau for the respondent Abitibi Power and Paper Company, Limited.

The judgment of the court was delivered by

MIGNAULT J.—These two appeals were argued together. They relate to the same controversy.

The appellant is the assignee of Charles E. Pope, now deceased, and as such is the owner of Canadian patents, nos. 186,500 and 192,726, "for improvements in method and machine for making paper," granted to Pope on the 10th of September, 1918, and the 16th of September, 1919, respectively. It brought two actions for infringement, one against the Spanish River Pulp and Paper Mills, Limited, hereinafter termed the Spanish River Company, and the other against the Abitibi Power and Paper Company, Limited, which I will call the Abitibi Company. In the action against the Spanish River Company it was alleged that that company had infringed both patents, and at the trial the defendant admitted infringement of patent no. 186,500, so that the action succeeded with respect to that patent, but went on to trial as to patent no. 192,726. The action against the Abitibi Company alleged infringement merely of patent no. 192,726, which accordingly is the only patent of which the validity is now in question.

The action against the Spanish River Company was tried first and, by consent, the evidence adduced was made applicable to the action against the Abitibi Company, the

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<sup>(1) [1927]</sup> Ex. C.R. 28. Both actions were dismissed upon the same grounds.

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trial of which immediately followed, some additional evidence having been introduced. In both cases the actions were dismissed by the Exchequer Court, on the ground that patent no. 192,726 was invalid. The appellant now appeals in each case.

The patent is for an appliance for carrying, in a paper manufacturing machine, the paper from the drying rolls to and through the calenders. The modern paper machine presents this feature that a solution of pulp and water is introduced at one end, and at the other end, some 200 feet away, the fully manufactured paper emerges and winds itself upon rolls. This involves first the gradual removal of the water, the pressing and drying of the residuum of pulp, and finally what is called the calendering of the paper, which is done by passing it through several heavy steel rolls in order to give it a proper gloss or smoothness of surface.

The patented device deals with the dried paper as it passes from the drying rolls onto and through the calender rolls. These calender rolls, eight or ten in number, are in a vertical stack; the motive power is applied to the lower-most and much the largest roll, and each of the other rolls revolves by friction with the roll below it, each turning in an opposite direction from the one immediately above and below. The paper web, which may be, and frequently is, twenty feet in width, enters the stack of calender rolls at the top, or between the two uppermost rolls, and moves in the same direction as the lower roll, that is to say it winds around each successive lower roll, thus changing its direction from side to side at each roll, and it emerges at the bottom in a fully manufactured state.

The patented device is intended to facilitate the passage of the paper through the stack of calender rolls. It is stated to consist in a combination between the calenders of a paper machine, an appliance called the "doctor" arranged to strip the paper from an upper calender roll, and an air passage designed to direct a current of air against the upper calender roll beneath the point of contact of the "doctor" therewith, so as to impinge on such roll and be directed against the paper passing between the upper and lower calender roll, and press the paper against the latter roll.

In explanation of this description, we are told that the paper web has a tendency to continue revolving around the same roll after it has passed through the nip or bite between the two rolls. To prevent this, there is first the "doctor," which consists in a sharp knife on a rigid frame extending the whole width of the paper web. The shape of the "doctor" varies, but in the drawings of the patent Mills Ltd. in suit it is shewn as having two arms at right angles, one horizontal containing the scraping knife and the other vertical extending downwards. The "doctor" can at will be brought into contact with the roll or removed some distance therefrom. When it is in the former position, as far as one can judge from the drawings, the knife scrapes the upper roll at about 10 or 15 degrees beyond the nip or bite, Mignault J. and thus the paper is prevented from revolving around the upper roll. In addition there is in the vertical arm of the "doctor" a pipe through which a stream of compressed air is directed against the upper roll just below its point of contact with the knife, and this stream of air, after reaching the upper roll, deflects downwards towards the lower roll, thus pressing against the paper and forcing it to revolve around the lower roll. This operation is repeated at each roll until the paper emerges from the nip between the two lower rolls and the calendering process is complete.

When a web of paper is to be started through the calender rolls, the practice is to cut off a portion of the paper from the web, thus leaving, at the inside edge of the paper machine, a strip of about six inches wide, called the lead strip, and when this strip has successfully passed through the rolls it is gradually widened until the whole width of the paper web goes through the calender rolls. It is stated that in the modern paper machine the paper passes through these rolls at a speed of from 600 to 1,000 feet per minute. What the specifications chiefly emphasize is that, before the alleged invention, the operation whereby the lead strip was made to go through the calender rolls was attended with great danger to the operatives, inasmuch as they had to direct this strip by hand, so as to cause it to engage the nip or bite between the two rolls, with the result that not infrequently their fingers were caught and crushed. With this appliance there is stated to be a saving of manual labour as well as the prevention of injury to

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the men. I think its utility can be granted, and this apparently was the opinion of the learned President of the Exchequer Court, who, however, did not regard that as conclusive of the validity of the patent. The crucial question is whether this device, however useful, involves invention. This brings me to the appellant's actions and to the defences set up by the respondents.

Both actions were based on infringement by the defendants, with the usual demand for damages, an injunction, an account of profits, etc.

The principal defences of the respondents may be briefly summarized. They were:

- 1. That the patent in suit had not been infringed;
- 2. That it was void for lack of novelty and invention;
- 3. That the patent was void because the alleged invention had been in public use or on sale with the consent or by allowance of the alleged inventor for more than one year previous to the application for a patent in Canada;
- 4. That at all events the respondents were protected, as to their use of the device, by subs. 2 of s. 7 of the Patent Act of 1921 (11-12 Geo. V, c. 44).

The learned trial judge did not give effect to the last two defences. He dealt at considerable length with the second defence. Generally agreeing with the contention that, in view of the state of the prior art, the patent in suit lacked invention, he rested his judgment dismissing the plaintiff's action on the ground that all that Pope had done was to apply a well known thing to an analogous use, and that there was no invention in the mode of application.

It must be remembered that the plaintiff's patent does not claim to have invented a new principle for directing the paper web, or the lead strip to which its width has been reduced, towards the lower roll. The evidence shews, and it is not disputed, that the appliance called the "doctor," of which there are two standard forms, was well known, and it is employed by Pope for the very purpose for which it was designed. The use of a stream of compressed air for pressing the paper against the lower roll was also familiar in the prior art. It is true that different appliances were devised and patented for directing this

stream of air towards the paper, so as to press it against the lower roll, these appliances sometimes taking the shape of a windshield surrounding a part of the lower roll, with perforated holes on the inside surface through which the current of air was forced against the paper, sometimes of cylindrical pipes, also with perforated holes for the same purpose; but although there was a difference in the shape Mills Ltd. of these appliances, the function they were designed to perform was identically the same as in the patent in suit. Moreover, Pope himself had patented, in 1915, a device, not dissimilar to that in question, which dealt in a like manner with the wet web as it passed through the press rolls, by delivering a thin sheet of air substantially tangential to the cylindrical surface of the press roll, so as to take off the web from the press roll in case it should have a tendency to adhere thereto. It does not appear to have required invention to adopt a similar method for directing the dry paper through the calendar rolls, which is a use analogous to that mentioned in the Pope patent of 1915.

Nothing more is claimed here than a combination between a "doctor," which was old, the calenders of a paper machine, also old, and an air passage to direct air against the surface of the upper calender, below its point of contact with the "doctor." All this was well known in the art, noticeably the use of a stream of compressed air to force the paper downwards along the revolving surface of the lower roll until it reached the nip or bite, when the same process was repeated. There was no room for novelty except perhaps in the shape of the appliance, or possibly in the precise point towards which the stream of air was directed. Such features, however, cannot justify the claim of the patentee, who did not seek a patent for an improvement of an existing device, but rested on a combination, all the elements of which, and the very purpose for which it was designed, were old and well known in the art. I have very carefully read the testimony and considered the patents put in evidence, and I do not think the patent in suit can be supported. The learned trial judge has so fully discussed the issues and the evidence that I feel I cannot usefully add anything further to what he has said. The existence or

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not of invention involves merely a question of fact, and on this question of fact I think the appeal fails. It is not necessary to express any opinion as to the other defences of the respondents.

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I would dismiss both appeals with costs.

Appeals dismissed with costs.

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Solicitor for the appellant: Russel S. Smart.

v. Abitibi Power & Paper Co. Ltd.

Solicitors for the respondent The Spanish River Pulp and Paper Mills, Limited: Gibson & Gibson.

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Solicitors for the respondent Abitibi Power and Paper Company, Limited: Kilmer, Irving & Davis.