1938
May 10, 11 & 12.
1939
Jan. 17.

BETWEEN:

WHITIN MACHINE WORKS .....PLAINTIFF;

AND

FERNANDO CASABLANCAS .....DEFENDANT.

Patents — Impeachment action — Patent invalid — Lack of invention — Subject-matter.

The action is one to impeach claims numbered 1 and 2 of Canadian Patent no. 255,629 granted to defendant on November 24, 1925. The patent relates to improvements in drawing apparatus for textile rovings. Plaintiff contends that claims 1 and 2 of the patent disclose no invention and therefore are invalid and void. Plaintiff also contends that any invention or inventions covered by claims 1 and 2 of the patent in suit had been already described and patented in and under United States Patents nos. 1,240,670 and 1,297,794 granted to defendant in September, 1917, and in March, 1919, respectively, and one British Patent, no. 9,692, granted to defendant in February, 1919. The Court found that the belts described in United States Patent no. 1,240,670, and in the patent in suit, are described by the patentee as performing the same function in the same manner; and that the drawing mechanism described in the patent in suit performs the same function as that referred to in the United States Patent no. 1,297,794.

Held: That there is no subject-matter in claims 1 and 2 of Canadian Patent no. 255,629.

2. That the introduction of "slack" or "loose" belts, as described in the patent in suit, does not add such a new and useful element to the known mechanism as to constitute a new combination possessing that degree of novelty and utility to justify ascribing to it the quality of invention.

ACTION to impeach claims 1 and 2 of Canadian Patent for Invention no. 255,629.

The action was tried before the Honourable Mr. Justice Maclean, President of the Court, at Ottawa.

R. S. Smart, K.C. for plaintiff.

H. Gerin-Lajoie, K.C. for defendant.

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

THE PRESIDENT, now (January 17, 1939) delivered the following judgment:

This is an action wherein the plaintiff company, which carries on business at Whittinsville in the State of Massachusetts, U.S.A., claims a declaration that claims 1 and 2 of a patent of invention, no. 255,629, granted to the defendant in November, 1925, are invalid and void.

It is contended on behalf of the plaintiff that when this patent was applied for, on October 22, 1924, the invention or inventions covered by the said claims had already been patented more than two years before the date of the said application, under two United States patents, nos. 1,240,670 and 1,297,794, granted to the defendant Fernando Casablancas, in September, 1917, and March, 1919, respectively, and also under a British patent, no. 9,692, granted to the said Casablancas in February, 1916. The plaintiff was the exclusive licensee of the defendant in the United States, under the United States patents just mentioned, for mechanisms for drawing fibres with endless belts, and which the plaintiff there manufactured under such licence or licences; the said licence or licences terminated on the expiration of such United States patents, some few years ago. Certain textile mills in Canada were threatened with actions for infringement of the patent in suit if they continued to purchase from the plaintiff the drawing mechanisms manufactured by it, and thereupon this action was instituted. It is claimed by the plaintiff that the first time two claims of the patent in question here disclose no invention, and are therefore invalid and void.

The patented invention here is said to relate to a drawing apparatus for textile rovings by means of which a large draft of the roving can be obtained in a highly favourable condition. The similar mechanism is referred to in other patents as a "spinning frame." Cotton,—the textile material always spoken of at the trial—as received by a mill is a mass of tangled fibres in bale form, mixed with foreign matter, and the ultimate object is to convert the raw fibres into cotton yarn. After being cleaned the cotton reaches the stage when it is subjected to carding, and from the carding the cotton fibres come in the form of strands or ropes, known in the industry as "sliver" or "roving." As the patent in question always speaks of "roving" or "rovings," I shall adhere to that terminology. This roving has to go through what is called a drawing operation before it is a finished yarn. In a roving, the fibres, long and short, are held together loosely, and with just enough twist to prevent them falling apart of their own weight. "Drawing" means the drawing out of cotton fibres from

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a given sized roving into another one of greater length and correspondingly smaller section, the object being to spread out the fibres into a longer and thinner form, making a fair distribution of the short and long fibres, until in the end it approximates the size and form of any desired cotton thread or yarn. It is one of the last steps in the process of making cotton yarns.

The mechanism in question is made up of three pairs of rollers. First, there is a pair of feed rollers, between which the roving is fed. Then follows a pair of intermediate rollers, each carrying an endless belt or band, which run at a peripheral speed much higher than the feed rollers, and between them is held the roving which is carried by the belts up to a point near the last pair of rollers, called the drawing rollers. The drawing rollers run at a peripheral speed much higher than the intermediate rollers, so that between each set of rollers a drawing or lengthening of the roving is progressively effected, but particularly by the drawing rollers. We need not discuss what occurs after the roving has passed through the drawing rollers.

I had better refer to two paragraphs of the specification which will more accurately explain the alleged invention than I can do. These two paragraphs are as follows:

My invention relates to a drawing apparatus for textile rovings by means of which a large draft of the roving can be obtained in highly favourable conditions.

This apparatus is made up of three pairs of rollers moving at increasing peripheral velocities, of which, the intermediate pair of rollers are provided with two endless bands which by surrounding these rollers exert pressure one against the other and between them hold the roving and bring it up to a point quite near the last pair of rollers or drawing rollers. These endless bands are guided by a small frame-work resting on the intermediate rollers, and formed by two plates which laterally guide the bands preventing them from shifting towards one side or the other and by rods or other devices which join these plates together and which at the same time serve as a guide to the bands so as to make sure that these adopt the correct position. These endless bands follow the movement of the intermediate rollers, and they therefore seize the roving between them, hold it gently and lead it up to a point very near the drawing rollers.

The first pair of rollers or feeding rollers adopt the arrangement usual in already known drawing devices, the second pair of rollers, or intermediate rollers, which carry the endless bands, run at a peripheral speed higher than that of the feeding rollers, so that between the feeding rollers and the intermediate rollers a first draft of the roving is effected the object of which, principally, is to cause the twist of the roving to disappear and leave it in good condition to undergo the definite drawing. The third pair of rollers or drawing rollers run, on the other hand, at a peripheral

speed much higher than the intermediate rollers and higher, therefore, than the bands driven by the latter, so that, between the bands and the drawing rollers a very vigorous draft of the roving is effected. The bands have a special arrangement which causes them to hold the roving tightly at the point corresponding to the line of contact of the two rollers which drive the bands, but, on the other hand, in all the rest of that part in which the roving is imprisoned between the bands the pressure which these latter exert upon the roving is a very gentle pressure. This slight pressure makes it easy for the fibres held by the drawing rollers to slip from between the other fibres of the roving. On the other hand, this pressure is sufficiently firm to prevent these fibres dragged along by the drawing rollers from dragging in their movement the neighbouring fibres, which are thus obliged to follow the normal speed of the bands up to the moment in which they are caught between the drawing rollers. In order to bring this about, the two endless bands are slack and the same frame-work which guides them compels them to impinge one against the other with a gentle and elastic pressure.

Claims 1 and 2 are as follows:

1. A drawing apparatus for textile rovings having in combination three pairs of rollers positively driven with increasing peripheral speeds, a pair of loose endless bands which run round the rollers of the intermediate pair and are driven by them and a frame-work supported by the same rollers of the intermediate pair and which laterally guides these bands, the roving which is being drawn thus passing between the two rollers of the first pair and of the last pair and between the two bands of the intermediate pair, which accompany the roving up to quite close to the last pair of rollers or drawing rollers.

2. In a drawing apparatus for textile rovings, a pair of feeding rollers, a pair of intermediate rollers which revolve at a peripheral speed greater than the feeding rollers, a pair of drawing rollers which revolve at a peripheral speed greater than the intermediate rollers, a pair of loose endless bands which run round the intermediate rollers and are driven by them and a frame-work which guides the bands laterally and obliges them to adopt such a form that they seize the roving and lead it gently up to quite near the drawing rollers.

It will be seen that the belts or bands surrounding the intermediate rollers are described as being "slack," and in claims 1 and 2 they are referred to as "a pair of loose endless bands." The whole mechanism, broadly speaking, is undoubtedly old and the only suggestion of patentable novelty or utility is that the combination of "slack" or "loose" belts on the intermediate rollers, together with all the other elements of the mechanism, afford subject-matter for a valid combination patent. There is no defined measure of the degree of slackness or looseness of the belts requisite for the most effective functioning of the belts, in carrying the rovings to the drawing rollers. The issue therefore narrows down to the point as to whether or not the introduction of "slack" or "loose" belts constitute invention, or whether it adds such a new and useful ele-

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ment to the known mechanism as to constitute a new combination possessing that degree of novelty and utility as would justify ascribing to it the quality of invention. Therein rests the essence of the issue to be determined.

The claim to invention seems to rest in the fact that the belts, except at the point corresponding to the line of contact of the rollers which drive the belts, exert but a very gentle pressure on the roving, and this gentle pressure, it is said, makes it easy for the fibres held by the drawing rollers to slip from between other fibres of the roving. But, the specification states, the pressure exerted by the belts upon the roving is sufficiently firm to prevent fibres dragged along by the drawing rollers from dragging in their movement the neighbouring fibres, which are obliged to follow the normal speed of the belts until they are caught between the drawing rollers. To bring this about the specification states the two endless belts must be slack yet they must impinge one against the other with a gentle and elastic pressure. All this amounts to saying that the belts should be slack but not too slack, loose but not too loose, and that they should impinge upon one another with "a gentle and elastic pressure," but the pressure must not be too slight. That seems to be the sole ground for a claim to monopoly here, and that because the described belts give a new quality or character to the combined elements of the mechanism.

The plaintiff's particulars of objection refer to the two United States patents already mentioned, nos. 1,240,670 and 1,297,794, granted to the defendant Casablancas in 1917 and 1919 respectively, and also to British patent no. 9,692, granted to Casablancas in 1916, and it is claimed by the plaintiff that any invention or inventions covered by claims 1 and 2 of the patent in suit had been already described and patented in and under those three patents, and which issued much more than two years before Casablancas applied for the Canadian patent in question. The first mentioned United States patent does not in terms refer to slack or loose belts, but it does state that the belts come into contact one against the other, and that the belts convey the roving to the drawing rollers. The specification states that the roving passes beween the belts to the drawing rollers and the belts "retain the fibres which have not

been caught by the drawing rollers so as to avoid such fibres being picked off and dragged along by the fibres which have already been drawn by the drawing rollers." The quoted words in the last sentence above express the same thing as is to be found towards the end of the last paragraph which I earlier quoted from the specification in question, that is to say, the pressure must not prevent fibres caught by the drawing rollers to slip away from other fibres in the roving, but there must be sufficient pressure to prevent fibres being dragged along by the drawing rollers from dragging neighbouring fibres of the roving along with them. Therefore the belts in this United States patent, and in the patent in question, are described by the patentee as performing the same function in the same manner, so therefore the belts in each case must be much the same order in respect of tension and pressure. The belt arrangement in this United States patent is somewhat different from that in the patent in suit, but I do not think that the belts in the former can be described as "tight" or "slack," or that they exerted undue pressure on the roving. The idea no doubt was that there had to be sufficient pressure to carry the roving to the drawing rollers in orderly fashion, but the pressure had to be of that degree which would permit of the release from the roving of any fibres caught by the drawing rollers without dragging neighbouring fibres from the roving. They were expected to perform the same function as the belts described in the patent in suit, which are to be "slack" but yet they must impinge one against the other with some pressure. The second mentioned United States patent refers to the endless belts receiving the roving, grasping it practically throughout its length and delivering it to the drawing rollers "in a well understood manner," and that is just what the drawing mechanism in question here does. It is not necessary to refer to the British patent to Casablancas.

One cannot learn from the patent in suit just what is the requisite degree of pressure to be applied when the belts impinge one against the other, or under what tension the belts should function. I have no doubt that in the early use of the Casablancas mechanism it was at times found that the belts were sometimes too tight and other times too slack, or that the pressure of the one against the other

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was too great or too little. The operator of the mechanism, or some one, would have to ascertain the suitable degree of tension and pressure by experiment, by trial and error, as I have no doubt was done, and probably has, in many cases, yet to be done. And probably that was the reason why Casablancas in his earlier patents did not in terms speak of a slack belt, or of any particular pressure between the belts; it was only after the expiry of his main patents that he does this, and then ineffectually, because he speaks of it only in general terms.

The fibres of the roving are delivered to the drawing rollers by the belts for the purpose of accomplishing the drawing. If the belts are too tight, or if the pressure between them is too great, it seems obvious that they could not deliver the roving to the drawing rollers in a satisfactory way. If the belts were too slack or too loose, or if the pressure of the one against the other were too light, that would also be unsatisfactory. It is obvious that the belts should not be too tight, or impinge one against the other with too much pressure, but on the other hand there must be some tension and some pressure. The proper degree of tension, or pressure, or both, can only be determined by trial and error, and the specification would not assist anyone in determining this. Anybody interested in Casablancas' drawing mechanism would know and expect this, as no doubt did Casablancas himself, but this would present, at the date of Casablancas' application for the patent in question, no real difficulty to people conversant with the subject-matter and admits of no sufficient ingenuity to support a patent. In earlier days women, by the touch of the finger determined how much pressure should be applied to the carded wool in feeding it to the spinning wheel, and it is the same thing here, except that the art has been mechanized. I do not think that any invention can possibly be attributed to the claims in Casablancas which are here attacked, and the combination therein described.

The plaintiff is therefore entitled to the declaration claimed, and to its costs of the proceeding.

Judgment accordingly.