1927 June 23. Sept. 6.

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CANADIAN INTERNATIONAL PAPER DEFENDANTS.

Patents-Novelty-Invention-Improvement

The patent in suit relates to a barking drum used in the making of pulp, and for improvements thereto. The drum is a rotatable, cylindrical drum, the interior wall of which is formed by bars extending longitudinally, the central portion of such bar being rounded or made substantially into a U-shape, projecting inwardly, the marginal edges of the bars on either side constituting a base or flange through which the bars are fastened to the hoops around the exterior of the drum. Between the bars are spaces through which the bark falls. The general construction of the barking drums known to the prior art was of the same general character as that of the plaintiffs. Plaintiffs claimed that their improvements consisted in rounding the angle bars into U-shape, forming pockets between them, which improved and assisted in the tumbling of the wood in the drum and was more expeditious in action. The only difference between the prior art and the patent consisted in this U-shaped alleged improvement, the drums previous to the plaintiffs having a flat smooth surfaced bar.

- Held, that to produce a rounded surface on the bars forming the interior walls of the drum did not denote invention; that such an alleged improvement is a matter for a mechanic or engineer to work out, and did not require inventive genius.
- 2. That merely to carry forward an idea disclosed in the prior art, by making a change in form, but doing the same thing in the same way, by substantially the same means, even if with better results, does not constitute invention. [Railroad Supply Company v. The Elyria Iron and Steel Company, (1917) Patent Off. Gaz. (U.S.) vol. 239, p. 656, referred to and followed.]

ACTION by plaintiffs for an injunction against the defendants preventing them from infringing the patent in question.

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

George F. Henderson, K.C., for plaintiffs.

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

The facts are stated in the reasons for judgment.

THE PRESIDENT, now (6th September, 1927), delivered judgment.

This is an action for infringement of Canadian Patent No. 194245, granted to Herbert Guettler for a new and GORGICA
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useful improvement in Barking Drums. The validity of the patent is challenged. If the patent is valid there can be no question but it has been infringed by the defendants, and I need say nothing further upon the question of infringement.

The inventor in his specifications describes in part his invention as follows:—

The present invention relates to bark removing machines of the type wherein the blocks of wood, from which the bark is to be removed, are tumbled in a rotating drum. The improvements comprising the invention reside in the provision, within the drum, of devices for effecting the required tumbling action constructed in such a way as to completely avoid brooming or splintering of the ends of the logs, which is liable to occur when tumbling devices of the usual character are employed.

According to the invention, as carried into practice, the drum is made up of longitudinal bars which preferably extend from end to end thereof and are provided with continuous longitudinal projecting portions of substantially U-section. These projections, which may be, and in the preferred form of the invention are in the nature of corrugations, occupy the central portions only of the bars, and project inwardly toward the axis of the drum; and they are disposed sufficiently far from one another, due to their formation as just described, to provide an interrupted or pocketed interior surface within the drum, instead of a practically smooth surface. Consequently when the drum is in motion and the tumbling of the wood takes place, no injury to the wood will be occasioned, because of the fact that the ends of the blocks will strike against the rounded projections instead of against the sharp edges of the ordinary tumbling devices. The pieces of bark detached in this way from the blocks are discharged from the interior of the drum through longitudinal slots, which are produced by spacing apart the edges of the adjacent bars.

It will be seen from the specifications that the barking drum in question is a rigid, rotatable, cylindrical drum, in practice about ten feet in diameter and thirty feet in length, and of steel construction. The interior wall of the drum is formed by bars extending longitudinally throughout the drum, the central portion of the bar throughout being rounded or made substantially into a U-shape, or corrugation, projecting inwardly towards the axis of the drum, the marginal edges of the bars on either side of the U formation constituting a base, or flange as it is usually called, through which the bars are fastened to what are practically hoops surrounding the exterior of the drum, the bars being spaced one and a half to two inches apart, just sufficient to allow the bark to fall through the drum. The flanges or sides of any two adjoining bars constitute a pocket of about ten inches in width, sufficiently wide

and deep to catch the end of a log. The space through which the bark falls separates the sides or flanges of any two bars.

The patent in suit is claimed to have been anticipated by several prior patents. In the first place I might mention Paulson, United States patent, dated August 15th, 1916. The only distinction between Guettler and Paulson, is that the bars extending the length of the drum in the latter are flat and smooth upon the surface, there being no pocket space between them that might catch the end of a log, as in Guettler. There is a small space separating the bars through which the bark may pass, and it is claimed that this space is the equivalent of the Guettler pocket, but this contention does not I think call for serious con-In Paulson it is by the tumbling of the logs sideration. in a promiscuous fashion and the resulting attrition, that the logs are barked. Hussey, United States patent, August 12th, 1919, is of a similar construction except that plain angle bars, substantially spaced, constitute the interior walls of the drum. Guettler acquired this patent and modified the construction somewhat by placing the angle bars back to back. Later still, Guettler, in construction, covered the space between the angle bars with a cap or bent plate, and this cap or plate also covered the corners of the angle bars. This was the forerunner of the patent in suit. Then there is cited, Alfsen, Canadian Patent, Feb. 9th, 1915, the interior of which is constructed of angle bars, its general construction otherwise being the same as those already mentioned. Ross, United States patent, May 29th, 1917, is generally of the same construction, but with flat bars spaced to allow bark to pass through, and having bulb angles or bark knockers secured to the interior surface by rivets, and distanced apart circumferentially. think it is necessary to refer to any other of the cited prior art.

It will be seen therefore that in the prior art which I have mentioned, the general construction of barking drums was of the same general character as Guettler. In the earlier of the prior art, angle bars or something of that nature, were used to assist in knocking off the bark, or to assist in the tumbling of the logs. The only difference between Guettler and Paulson is, that the former has the

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central portion of what was a flat bar, made into a Ushaped bar whereas Paulson has a flat, smooth surfaced The U-shaped bar it is claimed, prevents brooming of the wood. I do not think there can be any merit to a claim of this kind, in any event. The ordinary angle bar construction would necessarily injure the wood, being sharp, but I cannot think that to produce a rounded projecting surface of any kind on the bars forming the interior walls of the drum, instead of the plain angle bars, would require The desirability of rounded projecting means invention. on the surface of the bars, if desired at all, instead of sharp edged bars would no doubt occur to any one observing a barking drum in operation, and it would be a matter for a mechanic or engineer to work out some form of construction of this nature. Paulson has a flat bar interior. and should therefore not injure the wood more, or as much even, as the U-shaped bar, but as a matter of fact, wood that is barked in Paulson, is broomed to some extent. By agreement of counsel, I was permitted to see a Paulson drum in operation, and I observed that the ends of some of the wood were broomed, although to a very small extent, but this was not necessarily due to the drum itself. I also observed that the drum carried the load of wood high up on its side and that the tumbling was pronounced and promiscuous, the logs being in all possible positions. could not see that anything could possibly add to the tumbling of the logs in the drum. Nor can I see how wood put through a Guettler drum could escape being broomed also, in some degree. I do not think the U-shaped bar in Guettler is of any advantage whatever over Paulson, in so far as the brooming of the wood is concerned.

Then the sole question, as it seems to me, is whether the pocket spaces in Guettler constitute an improvement that is patentable. It has not been established satisfactorily to me that the pocket facilitates tumbling, or at least in such measure as to substantially differ it from much of the prior art. When the head of a log enters a pocket it is said it remains there, and while the drum rotates other logs pile on top of it and behind it, all being carried higher in the drum than it otherwise would, thus it is said causing greater tumbling of the wood, and hence ensuring a more rapid and efficient barking. The pocket may pos-

sibly cause this in a very small degree, but in any event the logs would be tumbling about promiscuously, and I doubt very much if the pocket promotes either tumbling or barking. At least it is not correct to say that the pocket effects the tumbling of the logs as suggested in the Guettler specifications; that is effected by the rotation of the drum itself. It is almost entirely the friction between the tumbling logs that removes the bark, in both Paulson and Guettler. Evidence of a practical test made between Paulson and Guettler in barking wood at a mill of Price Bros. in Quebec, indicated a greater capacity for barking in the former. That test would seem to indicate that the barking of Paulson was more rapid than its rival. Guettler himself in his evidence did not seem clear or emphatic concerning the efficiency or capacity of his patent over Paulson, in this respect. He merely said you could not determine the capacity of a barking drum in a single test. He said you would have to watch the operation for a long period, and at several mills, and then take the average results. hardly understandable where there is claimed an improvement so substantial as to represent invention. Rae, the plaintiff's expert witness, would only say that he observed in a Guettler in operation that the ends of quite a number of logs entered the pocket. It may be quite true that the pockets of Guettler would fortuitously engage the ends of wood and perhaps promote tumbling, but this would represent but a negligible proportion of the total number of logs in a drum, and it does not at all establish the utility in tumbling or barking attributed to Guettler. Even if better results are obtainable by Guettler, that of itself is not sufficient grounds to sustain a patent. It appears to me that the claim concerning the tumbling qualities secured by the pocket is at the most a mere incident of a particular construction, primarily designed it is alleged to avoid brooming of the logs, but otherwise producing no constant, new, or substantial results.

While Mr. Henderson, particularly in his closing argument, made the most possible out of the case, and impressed me very considerably at the time upon the utility of the pockets of Guettler in tumbling the wood, still I cannot reach the conclusion that this utility has been established, or that Guettler is such an improvement over the prior art

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as to merit the grant of a patent. Guettler has been favourably received by the purchasing public, and it has gone into substantial use, but it has not been established that this was due to a cheaper construction, or to better results over say Paulson, nor has it been shown to produce new results.

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In the case of The Railroad Supply Company v. The Elyria Iron and Steel Co. (1), the Supreme Court of the United States, in discussing the patent there in suit, refer to a principle by that Court said to have been frequently laid down, and which I think is very applicable to the case before me. That principle is:—

The mere carrying forward of the original thought, a change only in form, proportions or degree, doing the same thing in the same way, by substantially the same means, with better results, is not such an invention as will sustain a patent.

I am therefore of the opinion that Guettler is not such an invention as will sustain a patent, and for this reason the plaintiffs' action fails. The defendants will have their costs of action.

Judgment accordingly.