No. 5 of 1962

IN THE HIGH COURT OF AUSTRALIA

ORMONDY

V.

J. GADSDEN PROPRIETARY LIMITED

REASONS FOR JUDGMENT

£1/5/-

Judgment delivered at MELBOURNE

on 27TH JULY 1964.

W. M. Houston, Govt. Print., Melb.

ORMONDY

v.

J. GADSDEN PROPRIETARY LIMITED

ORDER

Action dismissed, counter-claim allowed, with one half of the costs of both the action and the counter-claim excluding the costs of amendments to the particulars made at the trial.

ORMONDY

v.

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JUDGMENT

MENZIES J.

ORMONDY

v.

J. GADSDEN PROPRIETARY LIMITED

The plaintiff, who is the registered proprietor of Letters Patent 233082 in respect of an invention entitled "Conveyor Clearing Device" which was granted upon an application lodged on 25th February 1959, sues the defendant for infringement of claims 1-6 inclusive of the complete specification. The complete specification was published on 27th August 1959. The infringement alleged is the admitted installation in, and use since, December 1960 of a conveyor clearing device which is part of the line of machinery known as the No. 3 oven line in the defendant's Coburg factory. This is illustrated in photographs 6, 7 and 8. The defendant denies infringement and counter-claims for revocation of the letters patent or of claims 1-6 inclusive of the complete specification of the said letters patent.

The invention relates to a conveyor clearing device to receive articles from and carry them away from a main conveyor on which they have been subjected to some processing in the course of manufacture. The object and operation of such a conveyor clearing device may be illustrated as follows. A main conveyor consisting of two parallel endless chains to which forks are attached carries sheets of printed tin through a drying oven, one sheet being supported on one fork so that, when the fork descends, it is below the sheet which it carries. The conveyor clearing device is installed to the rear of the oven to receive the sheets from the forks as the chains, having passed through the oven, turn downwards on a sprocket to travel back in the opposite direction in a lower parallel plane. The conveyor clearing device is so mounted without floor support and

the forks are so shaped that in normal operation each sheet of tin is deposited upon the device and the fork carrying it passes through gaps in the device underneath the sheet. The sheet is then removed by conveyor belts before the next succeeding fork comes down to deposit its sheet. If a sheet is not removed before the next fork descends, that fork is obstructed thereby and cannot pass through the conveyor clearing device, with the consequence that a blockage occurs in which sheets of tin and forks pile up on top of each other and are damaged and distorted before the movement of the main conveyor can be arrested. The conveyor clearing device in normal operation transfers the deposited sheet by means of one or more moving endless belts (conveyors) to what is called the receiving station which receives the sheets upon conveyors set in a plane a fraction lower than those of the conveyor clearing device to facilitate transfer.

From this short description it is obvious that in such an arrangement it is most desirable to prevent any blockage upon the clearing device and if, despite precautions, such a blockage does occur, to stop the movement of the main conveyor as quickly as possible to avoid a pile up of forks. A good deal of reference was made at the hearing to the steps taken by the defendant to prevent stoppages by ensuring that sheets are properly aligned before they reach the conveyor clearing device, but I pass this by as irrelevant to the issues in this case. I am concerned with what a conveyor clearing device does to cope with a stoppage which does occur notwithstanding all that has been done at an earlier stage to prevent such an occurrence. This is also a convenient place to dismiss from consideration another irrelevancy. Part of the problem to be coped with is the overrun of the main conveyor. Its momentum in operation is such as to carry forward a number of forks after the power that drives it has been shut off. To

reduce this overrun, evidence was given that the defendant at one stage installed solenoid brakes to check the further movement of the main conveyor. This, no doubt, is a means of reducing overrun but nevertheless there may be other means of dealing with the problems which overrun creates and it is part of the plaintiff's claim that the invention does so in a particular way, viz. by providing that all that part of the conveyor clearing device which receives a deposited sheet yields and swings down under the pressure of descending forks. If this is so and the defendant has adopted the plaintiff's invention, it matters not that it has also used some other device to cope in a different way with the same problem. It did appear from the evidence that difficulties of the sort referred to were being experienced throughout the period from late in 1957 until the installation of the No. 3 oven line in December 1960 with the adjustment referred to hereafter.

It is, I think, clear that before 25th February 1959 it was known that if, in such an arrangement as I have described, clearance of a sheet was not effected from the conveyor clearing device and a stoppage occurred, the downward force of the forks upon the conveyor clearing device could be utilized to cut off automatically and quickly the supply of power to the main conveyor. This was achieved by an arrangement whereby the depression of the device or some part of it, pivoted and counter-weighted, would operate a cut-off switch connected with the drive to the main conveyor. Two instances will suffice. The conveyor clearing device forming part of the defendant's No. 2 oven line at Coburg (photographs 1-6) installed in October 1956 and modified in October 1958 is one; and what may conveniently be described as the United States Macoy Patent 2830690, an abridgement of which became available for public inspection in the Patents Office Library, Canberra, on 26th May 1958, is the other. In the former, the

depression of the central skid (or, as it later became, the central belt conveyor), which was pivoted and counter-weighted, operated a trip switch to cut off power to the main conveyor. In the latter, the depression of pivoted and counter-balanced magnetic rollers operated in the same way. If, therefore, the invention described and claimed in the plaintiff's complete specification is no more than a pivotal mounting of the counter-weighted conveyor clearing device so that, when a sheet is not cleared therefrom, the pressure exerted by the oncoming forks would depress the conveyor sufficiently to operate a trip switch and cut off power to the main conveyor, the defendant's attack upon its validity must succeed. There would be no subject matter and no novelty, and these were the objections taken.

For the plaintiff, however, it is contended that the invention described and claimed, though including the use of pressure on the pivoted conveyor clearing device to depress it and so operate a trip switch to stop the main conveyor, is more than this. Two further elements are relied upon. The first is said to be found in each of claims 1-4 inclusive and the second is said to be found in each of claims 5 and 6, and it is convenient to consider these groups of claims separately.

In the first place, it is claimed that the invention provides for an intermediate operation, that is, for a slight depression of the pivoted conveyor clearing device to give an additional opportunity for clearance of the obstructing sheet to be effected before the trip switch comes into action. This feature, it is said, distinguishes claims 1-4 from a mere device for cutting off power to the main conveyor. I have found myself unable to understand what is meant by the words "and to thereby allow further opportunity for the clearance to be effected" in these claims. The initial position is that an article such as a sheet of tin without any pressure from a

succeeding fork is in some way or other caught upon the conveyor clearing device. The next is that the succeeding fork (or forks) presses on that sheet with sufficient force to depress the conveyor clearing device. This depression, although it might for the moment prevent additional pressure mounting upon the caught sheet from the oncoming fork or forks, could not relieve that pressure unless the device were to move downward quicker than the forks by which it is depressed - something not possible having regard to the fact that the device is counter-weighted. Once a fork falls on the caught sheet it becomes imprisoned and has less chance than it had under free air of moving from the position in which it became caught. I accept the evidence about this given by the defendant's expert witness Mr. G. A. Vasey. Furthermore, any depression of the device holding the sheet would obviously make more difficult the passage of the caught and obstructing sheet from the downwards-tilted conveyor clearing device past the end of the forks at a level lower than the device itself on to the fixed level receiving station. If, as was at one time suggested as a workable possibility, an obstructing sheet was partly upon the conveyor clearing device and partly upon the receiving station, then pressure upon the flexible sheet where it was unsupported, as would have to occur, would depress it at that point and would inevitably cause the end on the receiving station to lift. This twisting of the sheet would, of course, lessen the likelihood of its forward movement. An attempt was made by the plaintiff's expert witness Mr. A. K. Csanady to explain how the initial movement of the conveyor clearing device under pressure would provide an opportunity for the imprisoned sheet to move forward but I did not find his evidence on this matter convincing. Furthermore, it did not square with the operation of the conveyor clearing device in the defendant's No. 3 oven line in which some depression of the device is necessary to operate the trip switch. It is in these

circumstances that I have not been able to give any real meaning to the following words in claims 1-3: " . . the minor conveyor being arranged to swing through a limited angle by means of said pivotal mounting in the event of the failure to clear an article from the main conveyor and to thereby allow further opportunity for the clearance to be effected". Not being able to understand to what it is to which these last words refer, I cannot regard them as providing an element of invention which distinguishes what the plaintiff has claimed in claims 1-3 from what was already known and in use.

The same difficulty is to be found in claim 4 which in somewhat different terms makes the movement of the conveyor clearing device the occasion for "thereby allowing further opportunity for the clearance to be effected". This obscure statement does not provide any ground for treating the claim as an advance upon what was already known and in use.

In my opinion, claims 1-4 inclusive are invalid both for lack of subject matter and want of novelty.

If, however, I am wrong about this and because of the element of the claim that the initial movement of the conveyor clearing device does create an opportunity for the release of an imprisoned sheet or for some other reason the claims or any of them are good, I am satisfied that the defendant has not infringed them. The initial downward movement in the conveyor clearing device forming part of the defendant's No. 3 oven line does not provide any opportunity for clearance of an imprisoned sheet to be effected; indeed, the plaintiff did not attempt to prove that it did.

There is, too, another point of difference between these claims and the conveyor clearing device in the defendant's No. 3 oven line. As I read claims 1-4 they relate to a conveyor clearing device in which it is only the main conveyor that is stopped by the downward movement of what is called the minor conveyor or the beam frame. I am of this opinion because

I read the words "being effective to stop the main conveyor" in claims 1 and 2, the words "the stopping of the main conveyor" in claim 3 and the words "and said main conveyor drive being disconnected by the operation of the said trip-switch" in claim 4 as stating the only effect of operating the trip switch. It is plain that in normal operation the main conveyor and the belts of the conveyor clearing device will both be operating under power. The claims insist that the drive assembly for the belts forming part of the conveyor clearing device should be operable independently of the main conveyor. Furthermore, the following paragraph appears in the body of the specification which I quote in full because it is important for more than present purposes:

> "Should, however, for one reason or another the conveyor clearing device fail to discharge a sheet 11 on to the receiving station before the next successive sheet is deposited thereon, the next successive fork 10 will jam against the said sheet 11 and be prevented from passing below the surface of the minor conveyor. But, in accordance with this invention, the additional weight of the extra sheet 11 and the pressure of the next successive fork 10 is sufficient to move the entire conveyor clearing device in an anti-clockwise manner around the shaft 17. After a slight movement of the conveyor clearing device the arm 66 will trip the trip-switch 65 and stop the main conveyor while the minor conveyor continues to run and removes the sheets from between the forks and deposits them on the receiving station conveyor. However, if the first sheet 11 is badly situated and/or the main conveyor over-runs after being switched off, the conveyor clearing device will move through a much greater angle and the sheets 11 held thereon will be deposited on the floor below the receiving station the device then swings back into its normal position".

For present purposes, of course, the significant part of this quotation is "while the minor conveyor continues to run" in the context that it is clearly intended to run in order to remove the obstructing sheets after the main conveyor has stopped. It is in these circumstances and this context that I have attributed to the last words of claims 1-4 inclusive the meaning that it is the main conveyor alone that is stopped.

In the conveyor clearing device alleged to infringe the patent, the trip switch, however, operates to stop both the main conveyor and the conveyors forming part of the conveyor clearing device. I do find, however, that for a short period in December 1960 the operation of the trip switch of the conveyor clearing device in the defendant's No. 3 oven line did stop the main conveyor but not the conveyors upon the clearing device and that this proved to be thoroughly unsatisfactory because the continued operation of the conveyor belts forming part of the conveyor clearing device did not clear obstructing sheets but instead were cut to pieces by them. What happened during those few weeks should, I think, have been expected for, as I have said, I see no way in which, once a sheet is imprisoned, it can be automatically removed after the imposition of weight upon it holds it down and depresses the conveyor clearing device against the force derived from the counter-weight.

I now come to what I regard as the crux of this case. In the paragraph from the body of the specification already quoted, these words appear: "However, if the first sheet 11 is badly situated and/or the main conveyor over-runs after being switched off, the conveyor clearing device will move through a much greater angle and the sheets 11 held thereon will be deposited on the floor below the receiving station the device then swings back into its normal position". These words do indicate that the inventor had in mind a movement of the

conveyor clearing device beyond that necessary to operate the trip switch whereby damage to forks and plates and sheets would be obviated and the normal position of the device would be regained after the caught sheets had been ejected by the continued running of the conveyors upon which the pile up had occurred. The "much greater angle" is not specified but what is envisaged is that the conveyor clearing device will yield to the pressure of the forks pressing upon it and will swing down much further than is necessary to operate the trip switch and the further operation stated will follow.

These elements are certainly not to be found in claims 1-4 - which refer merely to movement "through a limited angle" and then "additional movement" effective to stop the main conveyor - but the plaintiff's contention is that they are to be found in claim 5, which I will quote in full:

> "A conveyor clearing device for use in association with a main substantially horizontal conveyor comprising a pair of parallel endless chains passing around at least one front and one rear pair of co-axially mounted sprockets or rollers so that the top chain lengths move rearwards, said chains having affixed thereto a plurality of forks between which a succession of articles may be interleaved and by which said articles are carried to the rear of the main conveyor, said device including; a beam-frame, at least one minor conveyor mounted on the rear end of said beam-frame in line therewith, a drive assembly for said minor conveyor operable independently of said main conveyor, a pivotal mounting situated forwardly of said minor conveyor by which said beam-frame is pivotally supported about a transverse axis, at least one balance weight arranged on the forward end of the beam-frame before said axis so that said beam-frame and minor conveyor are balanced about said axis and so that the minor conveyor is normally maintained

in a horizontal position, and a trip-switch arranged with respect to said beam-frame so as to be operated by a predetermined downward movement of said beam-frame or minor conveyor from the normal position; the said device being arranged, when in use, so that the beam-frame and minor conveyor are in line with said main conveyor and immediately to the rear thereof, each article being laid by its associated fork on the minor conveyor which moves it rearwardly so that it is clear of the main conveyor before the next succeeding fork lays its associated article thereon, the minor conveyor being arranged so that the forks may continue their normal motion about the rear sprocket pair or pairs but so that the articles are caught thereby and cleared, said minor conveyor retaining its normal horizontal position during normal operation but being swung downwardly about said axis when said minor conveyor fails to clear an article before the next succeeding fork or forks descend thereon, the swing movement being caused by the pressure of the next succeeding fork or forks on the previous uncleared article, and the trip-switch being connected to the main conveyor so that, when operated, the main conveyor drive is stopped or disconnected."

In this claim the significant words for present purposes are " . . but being swung downwardly about said axis when said minor conveyor fails to clear an article before the next succeeding fork or forks descend thereon, the swing movement being caused by the pressure of the next succeeding fork or forks on the previous uncleared article, and the trip-switch being connected to the main conveyor so that, when operated, the main conveyor drive is stopped or disconnected". It is to be observed that there is a substantial difference between the paragraph which I have previously quoted from the body of the specification and this claim. The body of the specification makes it clear that

only a slight movement of the conveyor clearing device is necessary to operate the trip switch and that the movement of the conveyor clearing device "through a much greater angle" takes place after the trip switch has operated. Claim 5, however, suggests that the operation of the trip switch to stop the main conveyor is the last step in the process. It cannot be thought, however, that in claim 5 the downward movement necessary to operate the trip switch is otherwise than slight because from the specification as a whole it appears clearly that it is essential that, upon a blockage occurring, power to the main conveyor should be cut off as soon as possible. Otherwise, of course, overrun would not be the problem; the first problem would be the continued operation of the main conveyor under power. Read as a whole I have reached the conclusion that claim 5, like claims 1-4, is concerned with no more than such downward movement as is necessary to operate the trip switch and that it contains nothing corresponding with the words in the body of the specification: "However, if the first sheet is badly situated and/or the main conveyor over-runs after being switched off, the conveyor clearing device will move through a much greater angle and the sheets held thereon will be deposited on the floor below the receiving station the device then swings back into its normal position". Of course, the device could not swing back into its normal position unless all the sheets carried by the obstructing forks were in some way or other removed despite the downward pressure of the forks and the upward pressure from the counter-weight, so that the device could swing back into normal position passing the forks which, while resting on an obstructing sheet, had depressed it. However, what is described in claim 5 culminates with the stopping of the main conveyor drive and it does not anywhere deal with any device operating further.

Claim 6 is merely a modification of claim 5 and all that I have said about claim 5 also applies to claim 6.

It follows from what I have said that I construe these claims, like claims 1-4, as not going beyond a device to produce the automatic stopping of the main conveyor drive. So construed, all claims lack both subject matter and novelty.

I should add that, for reasons which I have already given in relation to claims 1-4, I read claim 5 as confined to a conveyor clearing device where the operation of the trip switch stops the main conveyor and not the minor conveyor. Indeed, the reference in claim 5 to the trip switch being connected to the main conveyor adds weight to the considerations already mentioned when considering claims 1-4. I do not read claim 5 as covering the case where the trip switch is connected with the conveyors upon the conveyor clearing device as well as to the main conveyor. Read as I read it, were claim 5 a valid claim, the clearing device as originally installed in the defendant's No. 3 oven line would, I think, have been an infringement which would have continued so long as the operation of the trip switch stopped the drive to the main conveyor but not to the conveyors upon the conveyor clearing device itself - a matter of a couple of weeks. The plaintiff would, therefore, in these circumstances and in the absence of anything else have been entitled to damages but - as I see it - merely nominal damages. It was argued for the defendant that in the conveyor clearing device forming part of No. 3 oven line, the drive assembly for the conveyors forming part of the conveyor clearing device was not operable independently of the main conveyor and that this constitutes a saving difference. I do not accept this. The evidence satisfies me that the conveyors forming part of the conveyor clearing device could be operated independently of the main conveyor and this, without more, made them "operable independently of said main conveyor".

For the foregoing reasons I have reached the conclusion that the action fails and that the counter-claim succeeds.

Notwithstanding these conclusions I have decided, in fairness to the plaintiff and in the hope, if my construction of the claims and my conclusion about infringement should hereafter be held to be wrong, of avoiding the need for a new trial, to state shortly further conclusions which I have formed upon matters in issue at the trial. My conclusions are as follows:-

(1) That had the claims or any of them claimed a conveyor clearing device such as is described in the passage quoted from the body of the specification, viz. a device which under pressure would not merely operate a trip switch to stop the main conveyor but would as a whole swing down out of the way of the overrunning forks and remove the imprisoned sheets and resume its normal position, I would have been of the opinion that there was both subject matter and novelty in what was claimed. Whether what would then have been claimed is workable, having regard to the downward and upward pressures upon imprisoned sheets, is another question which does not seem to me to have been raised.

(2) Upon the same hypothesis as in (1), I would not have regarded either the conveyor clearing device forming part of the defendant's No. 2 oven line or the description of the Macoy extractor as anticipating the invention claimed because in neither does all that supports a deposited sheet swing downward out of the way under the pressure of overrunning forks and remove the obstructing sheets so that what has swung down will then swing back again into normal position.

(3) That there was no evidence whatever to support the defence that the plaintiff obtained the invention claimed from the defendant.

Because a not inconsiderable part of the trial was concerned with a defence which, upon the defendant's own evidence, should not have been raised, and because, in my judgment, the plaintiff has succeeded on a number of other matters that were in issue, I think the proper order for costs is that the defendant should have but one half of the costs of both the action and the counter-claim excluding the costs of amendments to the particulars made at the trial.