IN THE HIGH COURT OF AUSTRALIA

PURCELL

V.

HAASE AND ANOTHER

ORIGINAL

REASONS FOR JUDGMENT

Judgment delivered at Sydney

on Thursday, 29th June 1967.

A. C. Brooks, Government Printer, Melbourne
C.7639/60

PURCELL

v.

HAASE AND ANOTHER

JUDGMENT TAYLOR J.

PURCELL

v.

HAASE AND ANOTHER

ORDER

Suit dismissed. Counterclaim allowed. Order that Letters Patent No. 236,570 be revoked. Pursuant to s. 119(1)(a) of the Patents Act 1952-1966, order that the defendants serve on the Commissioner of Patents an office copy of this order.

Plaintiff to pay defendants' costs of the suit and counterclaim.

PURCELL

v.

HAASE AND ANOTHER

On 31st May 1963 the plaintiff instituted a suit in the Supreme Court of New South Wales to obtain an order restraining the defendants from infringing certain letters patent which, pursuant to the Patents Act 1952-1960, had been granted to him on 1st April 1960. The letters patent purported to be in respect of "Improvements relating to water control devices for irrigation-channels" and, by the complete specification lodged on the date abovementioned, the relevant invention was said to relate to "an irrigation-water control device suitable for controlling the flow of water from water-irrigation channels or furrows into irrigation bays of land cultivated with the assistance of water irrigation, or suitable for controlling the over-flow of irrigation water to drainage or from one irrigation bay of land to another".

By their statement of defence filed on 18th November 1963 the defendants denied that there had been any infringement and counterclaimed for the revocation of the letters patent. The particulars filed with the statement of defence alleged as grounds for revocation that the invention was not an invention within the meaning of the Act, that the invention claimed in any or all of the claims in the specification was obvious and did not involve any inventive subject-matter and was not novel at the priority date of the letters patent. Further it was alleged that the claims made in the specification were ambiguous.

At this stage the proceedings were removed into this Court by force of s. 116 of the Act and nothing more seems to have been done until 30th November 1965 when the plaintiff filed a reply and defence to the counterclaim.

Since then there have been various interlocutory proceedings but neither party seems to have been anxious for the case to proceed. Apparently an application by the male defendant for letters patent in relation to a like subject-matter, which was, and is, opposed by the plaintiff, has been pending for some time and it may be that this circumstance has contributed to the delay. However this may be, it was only after the Court insisted that the suit should be disposed of and peremptorily fixed a date for hearing that it has come, ultimately, before the Court. I mention these matters because in the event of it becoming necessary to consider whether an account of profits, as claimed, should be ordered, the cause of the delay would be a relevant matter for investigation. However, when this aspect of the matter was discussed at the hearing it was agreed that if, in the result, I should make such an order it should be limited to a direction that the defendants should pay to the plaintiff an amount representing the profits made by the defendants out of the infringing articles manufactured by them between 1st April 1960 and the 31st December 1963 and half of the profits so made between the 1st January 1964 and the termination of the suit.

Before going to the specification it is desirable to indicate the general nature of the invention, or inventions, claimed by the plaintiff and to make some reference to the evidence relating to antecedent events. The plaintiff, who is and has been for some nine years a manufacturer of pre-cast concrete irrigation products, was formerly employed successively by the Water Conservation and Irrigation Commission and the Commonwealth Scientific and Industrial Research Organization. For the Commission he worked on the construction of weirs and bridges and, for the Organization, on the laying of pipes and bays for the purposes of irrigation and upon the installation of outlets

for the control of water from irrigation channels to adjacent land. At this time various devices were in use for controlling the flow of water from irrigation channels and through the irrigated properties. Prior to the middle of 1958 these devices seem to have consisted of so-called rectangular gates, consisting of sheet metal or other resistant material, which were engaged in slotted side posts and which could be raised to any desired level and, of course, lowered to the bottom of the channel, sometimes into a slot there provided, whenever it was desired to shut off the flow of water. Other devices were also employed where, instead of gates such as those described, "dropboards" were in use. These boards were placed one above the other longitudinally with their ends in side slots so that one or more boards might be removed permitting the flow of water over the top of the remaining boards instead of, as in the case of gates, along the bottom of the bed of the channel. Other methods, much more primitive, were also in use such as the manual demolition or construction of small earth banks or the insertion of pieces of sheet iron or other obstructive material.

However the plaintiff's alleged invention is quite different in construction and operation from any of these devices. In the main the invention which is said to have been infringed consists of two parts, a wall or block which is fixed in situ, and a plug which is a movable part. The block consists of what might be called a rectangular concrete slab were it not for the fact that there is an arcuate, or semicircular, portion missing therefrom. This is what was called during the hearing the spillway opening and it may extend any given distance from one edge of the block towards its centre. The purpose of the block when erected across a channel, so that the bottom of the spillway opening is near the bottom of the channel, is to prevent the flow of water except through the spillway. But the movable part,

the plug, corresponds in size and shape with the spillway opening and when placed in position in the opening it will prevent the flow of water beyond the block. Having once been placed in position, so that the block and plug together constitute a rectangle, it may be rotated in line with the block so that one end of the plug will rise and the other end fall allowing a greater or lesser flow of water according to the extent to which the plug has been rotated and the spillway opening, thereby, left unobstructed. In the specification, claims are made for what I shall for the moment call various modifications of this device but I shall return to these matters later.

The plaintiff's application was made on 2nd April 1959 but before this time he had been manufacturing out of concrete what were called L shaped stops, or slotted posts, for use with conventional gates. Also he had been experimenting with concrete blocks with U shape spillway openings. But it is apparent from the evidence that at the same time, late in 1958 and early in 1959, there were other competitors in the field. It seems that at Shepparton in Victoria one, Cortes, began in 1958 to manufacture and sell devices consisting of a block with approximately a semicircular opening and a plug of complementary size and shape. Further, early in 1959, the defendants commenced to manufacture such devices. These were, however, roughly and approximately made and were moulded in a mixture of sand and cement which gave a very rough and porous finish. These articles seem to have had a somewhat substantial sale in the various irrigation districts and it is clear that at the date of the plaintiff's application there was no novelty in devices for use in irrigation channels consisting of concrete blocks with arcuate or semicircular spillway openings and plugs of complementary size and shape. One of the devices of Cortes's manufacture was tendered in evidence (Exhibit 2) and a considerable amount of evidence was given by persons who had

purchased and used similar devices. Counsel for the plaintiff, however, contended that although the spillway opening in this exhibit could, perhaps, be described as arcuate, it could not be described as semicircular. But the method of production employed in the manufacture of these articles was imprecise and I am satisfied that those who bought and used them not only considered the spillway opening to be semicircular but operated the devices, so far as their rough and approximate construction would permit, in precisely the same manner as if it had been semicircular. That is to say it was common practice to rotate the plug in line with the block so that one end of the plug would be raised and the other side lowered and the spillway opening thereby opened to any desired extent.

There was, however, room for much improvement both in the moulding and finish of these devices. Originally, it seems, they were moulded in one piece, a rectangular slab, and the plug was then manually stamped out of the slab before the cement was dry. The result of this process was no more than approximate and, doubtless, there was some variation in the size of the spillway opening from one device to another. In these circumstances, no doubt, it was the plaintiff's primary intention to improve upon the moulding technique and produce a better finished article. This he did by using a good quality concrete, which set with a comparatively smooth finish, and by using precise moulds for each part. Other problems, however, necessarily presented themselves. Exhibit 2 was a comparatively small device;

what I shall call the diameter of the block was about 9½ inches and both the block and plug were about 4 inches thick and, when closed, the plug remained in position by the force of gravity. It was, therefore, apparent that if the size of the spillway was increased and that of the plug was correspondingly increased the force of gravity would not be enough to retain the plug in place in a closed position against the greatly increased force of the water behind it. The problem therefore was to devise a block and plug, which though it operated generally in the manner already described, would remain stable notwithstanding the water pressure exerted behind it when closed. This, of course, could have been done by increasing the weight of the plug to an extent sufficient to enable it to resist the increased pressure of water. But to have adopted that method would have been to defeat the object of the device as one which could be manually operated both easily and conveniently. This difficulty was overcome by the plaintiff by the introduction between the curved side of the plug and the spillway in which it was seated a tongue and groove connection. In such devices the plug was moulded with a tongue which extended longitudinally around its curved surface and the curve of the spillway opening on which the plug rested was moulded with a groove to accommodate the tongue. Both tongue and groove were trapezoid in section so as to afford a good seal. In devices of this manufacture the resistance of the plug to water pressure on one side of it no longer depended solely on gravity. It was, therefore, unnecessary to relate the weight of the plug to the force of the water on one side of it so that the device could be constructed in concrete which was not as thick as the cement which had previously been employed. At the same time an effective seal was provided when the plug was in the closed position and the device was capable of easy manual operation.

Coming now to the specification it may be observed that fifteen claims are made. Some of these relate to devices each specified as having an "arcuate or semi-circular spillway-opening" and a complementary arcuate or semicircular segmental plug, or a plug member consisting of "several co-acting parts", with no special provision for ensuring the stability of the plug or plugs when closed. These are claims 1, 2 and 3. It was conceded by counsel for the plaintiff, and, in my view, rightly conceded, that having regard to the evidence concerning what was known and used before the plaintiff made his application that claim 1 must be held to be invalid. In terms it comprehends precisely what had been manufactured and sold by Cortes and by the plaintiff late in 1958 and early in 1959. But it is contended that claim 2, with its specification of "a semi-circular spillway-opening in which a complementary semi-circular plug member is adapted to be located for turning movement" is valid since the spillway opening in the earlier device was not semicircular. However my view is that the earlier devices had approximately semicircular openings and that they were operated, so far as their rough and approximate character permitted, in precisely the same way as if they were semicircular. In my opinion, it is impossible to say that this claim can stand. Claim 3 obviously relates to the devices illustrated by figures 9 to 14 in the drawings attached to the specification where the spillway opening is shown to be U shaped and where the plug is divided into a number of parts so that the two lower components may be rotated in the spillway opening. To my mind this claim is also invalid.

The other claims are limited to devices in which some provision, other than mere gravity, is made to ensure the stability of the plug member. Accordingly clause 4 is a claim for a device as claimed in any one of claims 1 to 3, "wherein the water-retaining wall member and the plug member

have complementary tapered opposed faces for the purpose indicated". Claims 8 and 12, which are substantially similar claims to this claim, incorporate a reference to figure 5 in relation to devices in which the opening and the plug member are respectively "arcuate" and "U shaped" and the plug member is, respectively, "arcuate" or divided into several parts. Clause 5 relates to a device as claimed in any one of the claims 1 to 3 "wherein the water-retaining wall member and the plug member have complementary opposed shoulders for the purpose indicated". Claims 9 and 13 are again substantially similar to claim 5 and each incorporates a reference to figure 6 in the specification. I should, perhaps, observe that devices constructed in accordance with these claims ensure the stability of the plug only against force exerted from one side and not against force exerted from the other direction. But it is apparent that the means specified by which this is accomplished did not involve any inventive step. Claim 6 is vague in the extreme. It purports to claim as an invention a device as claimed in any one of claims 1 to 3 "wherein the water-retaining wall member and the plug member have a gasket insert set between the opposed faces and located in complementary recesses in said faces for the purpose indicated". The expression "for the purpose indicated" is difficult to understand but, however this may be, the claim does no more than specify that gaskets are provided, which must, presumably, be of such a character and size as will still permit the operation of the device and which will ensure the stability of the plug when it is in the closed position. I can find nothing in the specification which enables this claim to be understood more specifically and, in my opinion, it is invalid. For the like reason the substantially similar claims made by claims 10 and 14 must also fall. Claim 7 (together with claim 11) is the claim upon which the plaintiff really relies. It specifies a device "as

claimed in ... claims 1 to 3, wherein the water-retaining wall member and the plug member have a tongue and groove arrangement between the opposed faces for the purpose indicated". The invention as claimed is illustrated in figure 8 (to which claim 11 makes a specific reference) and it is as I have already described it.

The substantial question in the case, as I see it, is whether claim 7, and the related claim 11, are valid. Counsel for the plaintiff contends that it is and that the device with the tongue and groove connection between the block and the plug, was truly an invention. It is said that it operates on a principle different from that employed in earlier devices, that the provision of a semicircular spillway opening with a complementary plug is new, that the provision of the tongue and groove arrangement has resulted in it being no longer necessary to relate the weight of the plug to the force exerted behind it when it is in a closed position and that, all in all, it is entitled to be treated as a product of inventive skill. It is said that it is of no consequence that the arrangement is simple or that, as the result of hindsight, it may now superficially be thought that no inventive step was involved. In support of this contention it may, at least, be said that the male defendant, who was not called to give evidence, did not appear to have thought of this arrangement himself and there is no doubt that when, as was proved, he manufactured his infringing articles they were not the result of his own original thought or skill. Nevertheless, I think the contention must be rejected. The arrangement of a semicircular plug in a like spillway opening was not novel as I have already said and, except in one respect, it is not correct to say that the invention as claimed is designed to work on a principle different from that used in the earlier devices. In the manipulation of the plug for opening and

closing the spillway the principle is precisely the same. It is true that, because of more precise moulding and because the plaintiff used material which was much better suited for the purpose, the device actually made by him was far superior to the earlier devices. It was easier to manipulate and, probably, when closed it provided a somewhat more efficient seal than the earlier devices. But it is as unnecessary as it is irrelevant to say that the employment of better moulding techniques and superior material used did not constitute an invention for the claim made extends to devices whether they are precisely moulded and whether they are made out of concrete or a mixture of sand and cement or any other material. Secondly, it is abundantly clear that the invention as claimed is such that it will operate in precisely the same way as the earlier devices as far as the manipulation of the plug in opening or closing the spillway is concerned. In the case of the earlier devices the opening of the spillway was accomplished by rotating the plug in the spillway opening in line with the block so that one end of the plug would be raised and the other end lowered to the desired extent and in the invention claimed the plug is designed to operate in precisely the same manner. In no way is this feature of the invention claimed dependent upon the tongue and groove arrangement specified. That feature of the invention claimed, which is not in any sense novel, is designed to serve and will operate to serve one purpose only, that is to say, to ensure that, in the absence of abnormal stress or interference, the plug will at all times, whether shut or open, retain its position relatively to the spillway opening. This is not in any sense a novel use of a tongue and groove arrangement and, indeed, it could be accomplished by any arrangement such as opposed shoulders or flanges designed to serve the same purpose. As I see the claim it merely employs a simple combination of known integers in which "there is no inter-related working between the integers

in the sense that any one of the integers is doing something which it could not do without the presence of one or more of the others. Each integer is in fact performing its own part and is not functionally dependent upon the presence of any other integer at all" (per Lord Tomlin in British Celanese, Ld. v. Courtaulds, Ld. 52 R.P.C. 171 at p. 194). Apart from the provision of the tongue and groove connection the words of the claim appropriately describe the devices which were known and used before the priority date and the addition of the tongue and groove arrangement was simply the application of a well-known arrangement for the purpose, and only for the purpose, of achieving a well-known result.

For the reasons which I have given I am of the opinion that the invention claimed was not, as defined in any of the claims in the specification, novel and cannot be said to have involved any inventive step. Accordingly the suit will be dismissed and an order made on the counterclaim for revocation of the patent.