42.

Greaves & Co (Contractors) Ltd v Baynham Meikle and Partners - [1975] 3 All ER 99

PROFESSIONS; Other Professions; TORTS; Negligence

COURT OF APPEAL, CIVIL DIVISION

LORD DENNING MR, BROWNE AND GEOFFREY LANE LJJ

14, 15 MAY 1975

Negligence - Duty to take care - Professional person - Scope of duty - Duty to exercise reasonable skill and care - Steps to be taken to fulfil duty depending on circumstances - Consultant engineers - Design of building - Building required for purpose of storing oil drums and moving them about by fork-lift trucks - Knowledge of purpose for which building required - New mode of construction - Warning of danger of vibrations in code of practice interpreted too narrowly - Design rendering floor of warehouse inadequate for its purpose - Engineers liable for breach of duty.

The plaintiffs, who were building contractors, were employed by a company to construct a warehouse under a 'package deal' whereby, in addition to providing the labour and materials, the plaintiffs were to employ the architects and engineers as sub-contractors. The warehouse was required by the company as a store for oil drums which were to be kept on the first floor of the warehouse and, when required for despatch, were to be moved into position by fork-lift stacker trucks. The plaintiffs knew the purpose for which the warehouse was required and therefore were under a duty to the company to see that the building when finished was reasonably fit for that

([1975] 3 All ER 99 at 100)

purpose. The plaintiffs employed the defendants, a firm of consultant structural engineers, to design the structure of the warehouse. It was to be built according to a new system of construction which was governed by a British Standards code of practice. A circular had been issued by the British Standards Institution warning designers of the effect of vibrations caused by imposed loadings in such constructions. The plaintiffs made known to the defendants the purpose for which the warehouse was required and in particular that the first floor would have to take the weight of loaded fork-lift trucks moving to and fro. Although the defendants were aware of the circular they did not read it as a warning against vibrations in general and so did not take measures to deal with the random impulses of fork-lift trucks. There was evidence that other designers might have taken the same view of the circular. The warehouse was built in accordance with the defendants' design, and the first floor was put into use for storing oil drums and moving them about by fork-lift trucks. After a time the floor cracked and became dangerous, and it was found that remedial works costing some £100,000 would have to be carried out to cure structural damage. The plaintiffs became liable to the company to remedy that damage. They brought an action against the defendants for damages for breach of the agreement to design the structure and claimed a declaration of the defendants' liability for the cost of all work necessary to rectify the damage caused by breach of the agreement and an indemnity against all sums payable by the plaintiffs to the company by reason of breach of the agreement. At the trial of the action the defendants gave evidence admitting that they had been

engaged by the plaintiffs to produce a building the first floor of which would be fit for use as a store for oil drums and for moving the drums by fork-lift truck. Further, by the original defence to the statement of claim the defendants admitted that it was an implied term of the agreement that the defendants' design should be such that the building would be structurally sound, although on the second day of the trial the defence was amended to strike out that admission. The trial judge found that the cracks in the floor had been caused by vibration produced by movement of loaded fork-lift trucks, and that the floor had not been designed with sufficient strength to withstand that vibration. He held that as the design was inadequate for its intended purpose the defendants were in breach of duty and in breach of an implied term of the agreement that the design would be fit for its purpose; the plaintiffs were therefore entitled to the declaration and indemnity claimed. The defendants appealed.

Held - The appeal would be dismissed for the following reasons-

(i) There should, as a matter of fact, be implied into the agreement between the plaintiffs and the defendants an absolute warranty that the design would be fit for its intended purpose since the evidence, including the earlier admission in the defence, established that it was the common intention of the parties that the defendants should design a warehouse which would be fit for the purpose for which it was required. Since the defendants had failed to make such a design, they were in breach of the warranty (see p 104 *a* to *c* and *g*, p 105 *h* and p 106 *g*, post).

(ii) The defendants were also in breach of the duty to use reasonable care and skill imposed by law on a professional man such as an engineer. The measures to be taken by a professional man in discharging that duty depended on the circumstances of the case and in a particular case there might be special circumstances which required special steps to be taken in order to fulfil the duty. Having regard to the particular circumstances, ie that the defendants knew of the plaintiffs' requirements with regard to the warehouse, knew that a new mode of construction was to be used and were aware of the circular warning against vibrations in such constructions, the defendants were in breach of their duty to use reasonable care and skill in failing to take those matters into account (see p 104 *j* to p 105 *a* and *c* to *h* and p 106 *e* and *f*, post); dictum of McNair J in *Bolam v Friern Hospital Management Committee* [1957] 2 All ER at 121 applied.

Decision of Kilner Brown J [1974] 3 All ER 666 affirmed.

([1975] 3 All ER 99 at 101)

Notes

For the duty of care and liabilities of engineers, architects etc in relation to building contracts, see 4 *Halsbury's Laws* (4th Edn) 680-688, paras 1330-1348, and for cases on the subject, see 7 *Digest* (Repl) 457-463, *467-486*.

For the duty of care of professional men, see 28 *Halsbury's Laws* (3rd Edn) 19-22, paras 17-19, and for cases on the subject, see 36 *Digest* (Repl) 27, 28, *113-120*.

Cases referred to in judgments

Bolam v Friern Hospital Management Committee [1957] 2 All ER 118, [1957] 1 WLR 582, 33 *Digest* (Repl) 527, *81*.

Chin Keow v Government of Malaysia [1967] 1 WLR 813, PC, *Digest* (Cont Vol C) 666, *81a*.

Hancock v B W Brazier (Anerley) Ltd [1966] 2 All ER 901, [1966] 1 WLR 1317, CA; *affg* [1966] 2 All ER 1, *Digest* (Cont Vol B) 64, *41a*.

Miller v Cannon Hill Estates Ltd [1931] 2 KB 113, [1931] All ER Rep 93, 100 LJKB 740, 144 LT 567, 7 *Digest* (Repl) 346, *39*.

Readhead v Midland Railway Co (1869) LR 4 QB 379, [1861-73] All ER Rep 30, 38 LJQB 169, sub nom *Redhead v Midland Railway Co* 9 B & S 519, 20 LT 628, 8(1) *Digest* (Reissue) 76, *457*.

Samuels v Davis [1943] 2 All ER 3, [1943] 1 KB 526, 112 LJKB 561, 168 LT 296, CA, 39 *Digest* (Repl) 541, *763*.

Young & Marten Ltd v McManus Childs Ltd [1968] 2 All ER 1169, [1969] 1 AC 454, [1968] 3 WLR 630, 67 LGR 1, HL, *Digest* (Cont Vol C) 62, *419a*.

Cases also cited

Badgley v Dickson (1886) 13 AR 494.

Bagot v Stevens Scanlan & Co [1964] 3 All ER 577, [1966] 1 QB 197.

Cammell Laird & Co Ltd v Manganese Bronze and Brass Co Ltd [1933] 2 KB 141, CA; *rvsd* [1934] AC 402, [1934] All ER Rep 1, HL.
Chapman v Walton (1833) 10 Bing 57, [1824-34] All ER Rep 384.
Fletcher & Son v Jubb Booth and Helliwell [1920] 1 KB 275, CA.
Godefroy v Dalton (1830) 6 Bing 460.
Hart v Frame (1839) 6 Cl & Fin 193, HL.
Lanphier v Phipos (1838) 8 C & P 475, [1835-42] All ER Rep 421.
Roe v Ministry of Health, Woolley v Same [1954] 2 All ER 131, [1954] 2 QB 66, CA.

Appeal

This was an appeal by the defendants, Baynham Meikle and Partners, consultant structural engineers, against the judgment of Kilner Brown J ([1974] 3 All ER 666, [1974] 1 WLR 1261) given on 26 July 1974 at the trial of an action by the plaintiffs, Greaves (Contractors) Ltd, formerly known as J Greaves & Co (Contractors) Ltd, building contractors, against the defendants whereby the plaintiffs were awarded damages for breach of an agreement by which the defendants had agreed to design a warehouse to be constructed by the plaintiffs, and were granted a declaration that the defendants were liable for the cost of all work necessary to prevent and rectify damage to the warehouse and any other damage sustained by the plaintiffs caused by the defendants' breaches of the agreement, and for an indemnity against all sums payable by the plaintiffs by reason of the defendants' breaches. The grounds of the appeal were (i) that the judge had been wrong in law in holding that it was an implied term of the agreement that the defendants had impliedly warranted that the warehouse designed by them would be fit for the purpose intended, namely the use of loaded fork-lift trucks; (ii) that the judge should have held that the defendants' duty as consulting engineers was to exercise the degree of skill and care which was to be expected of structural engineers of ordinary competence and experience. The plaintiffs gave notice that on the hearing of the appeal

([1975] 3 All ER 99 at 102)

they would contend that the judgment of Kilner Brown J should be affirmed on the additional ground that the judge ought to have found that it was an express term of the defendants' contract with the plaintiffs that the defendants' design should be fit for the purpose intended, namely the use of loaded fork-lift trucks. The facts are set out in the judgment of Lord Denning MR.

Patrick Garland QC and *Mark Myers* for the defendants.

Brian Neill QC and *Andrew Pugh* for the plaintiffs.

15 May 1975. The following judgments were delivered.

LORD DENNING MR. This case arises out of a new kind of building contract called a 'package deal'. The building owners were Alexander Duckham & Co Ltd They wanted a new factory, warehouse and offices to be constructed at Aldridge in Staffordshire. The warehouse was needed as a store in which barrels of oil could be kept until they were needed and despatched, and in which they could be moved safely from one point to another. The 'package deal' meant that the building owners did not employ their own architects or engineers. They employed one firm of contractors, the plaintiffs, to do everything for them. It was the task of the contractors not only to provide the labour and materials in the usual way but also to employ the architects and engineers as sub-contractors. The contractors were to do everything as a 'package deal' for the owners.

Now, as between the owners and the contractors, it is plain that the owners made known to the contractors the purpose for which the building was required, so as to show that they relied on the contractors' skill and judgment. It was therefore the duty of the contractors to see that the finished work was reasonably fit for the purpose for which they knew it was required. It was not merely an obligation to use reasonable care. The contractors were obliged to ensure that the finished work was reasonably fit for the purpose. That appears from the recent cases in which a man employs a contractor to build a house: *Miller v Cannon Hill Estates Ltd*; *Hancock v B W Brazier (Anerley) Ltd.* It is a term implied by law that the builder will do his work in a good and workmanlike manner; that

he will supply good and proper materials; and it will be reasonably fit for human habitation. Similarly in this case the contractors undertook an obligation towards the owners that the warehouse should be reasonably fit for the purpose for which, they knew, it was required, that is as a store in which to keep and move barrels of oil. In order to get the warehouse built, the contractors found they needed expert skilled assistance, particularly in regard to the structural steel work. The warehouse was to be built according to a new system which was just coming into use. It was a composite construction system in structural steel and concrete. First there would be a steel frame erected to carry the walls and floors. Next they would get planks made of pre-cast concrete and bring them on to the site. They would place these planks in position along the floors, etc Then, in order to bind those planks firmly together, they would pour ready-mixed concrete in and above the planks, thus forming a solid floor. This method of construction had recently been introduced into use in England. It is governed by the British Standard Code of Practice 1965, CP 117.

The contractors employed a firm of experts, the defendants, Messrs Baynham Meikle and Partners, structural engineers, to design the structure of the building and, in particular, the first floor of it. There were discussions with them about it. It was made known to them-and this is important-that the floors had to take the weight of stacker trucks-sometimes called fork-lift trucks. These were to run to and fro over the floors carrying the drums of oil. The structural engineers, Baynham Meikle, were given the task of designing the floors for that purpose.

([1975] 3 All ER 99 at 103)

Mr Baynham made his designs; the warehouse was built and put into use. It was used for the transport of these oil drums with the stacker trucks. But, after a little time, there was a lot of trouble. The floors began to crack. The men took strong objection to working there. They thought it was dangerous. The cracks seemed to be getting worse. So much so that the experts were called in. Attempts were made to cure the trouble, but without success. The position now is that the warehouse is of very limited use. It is anticipated that remedial works will have to take place at great expense. The damages are said to come to £100,000.

What was the cause of this cracking of the floors? The structural engineers said that it was due to the shrinkage of the concrete for which they were not responsible. There was nothing wrong, they said, with the design which they produced. But the judge did not accept that view. He found ([1974] 3 All ER 666 at 672, [1974] 1 WLR 1261 at 1268) that the majority of the cracks were caused by vibration and not by shrinkage. He held ([1974] 3 All ER at 672, [1974] 1 WLR at 1269) that the floors were not designed with sufficient strength to withstand the vibration which was produced by the stacker trucks.

On those findings the first question is: what was the duty of the structural engineers towards the contractors? The judge found ([1974] 3 All ER at 672, [1974] 1 WLR at 1269) that there was an implied term that the design should be fit for the use of loaded stacker trucks; and that it was broken. Alternatively, that the structural engineers owed a duty of care in their design, which was a higher duty than the law in general imposes on a professional man; and that there was a breach of that duty.

To resolve this question, it is necessary to distinguish between a term which is implied by law and a term which is implied in fact. A term implied by law is said to rest on the *presumed* intention of both parties; whereas, a term implied in fact rests on their *actual* intention.

It has often been stated that the law will only imply a term when it is reasonable and necessary to do so in order to give business efficacy to the transaction; and, indeed, so obvious that both parties must have intended it. But those statements must be taken with considerable qualification. In the great majority of cases it is no use looking for the intention of both parties. If you asked the parties what they intended, they would say that they never gave it a thought; or, if they did, the one would say that he intended something different from the other. So the courts imply-or, as I would say, impose-a term such as is just and reasonable in the circumstances. Take some of the most familiar of implied terms in the authorities cited to us. Such as the implied condition of fitness on a sale of goods at first implied by the common law and afterwards embodied in the Sale of Goods Act 1893. Or the implied

warranty of fitness on a contract for work and materials: *Young & Marten Ltd v McManus Childs Ltd*. Or the implied warranty that a house should be reasonably fit for human habitation: see *Hancock v B W Brazier*. And dozens of other implied terms. If you should read the discussions in the cases, you will find that the judges are not looking for the intention of both parties; nor are they considering what the parties would answer to an officious bystander. They are only seeking to do what is 'in all the circumstances reasonable'. That is how Lord Reid put it in *Young & Marten Ltd v McManus Childs Ltd*; and Lord Upjohn ([1968] 2 All ER at 1175, [1969] 1 AC at 471) said quite clearly that the implied warranty is 'imposed by law'.

Apply this to the employment of a professional man. The law does not usually imply a warranty that he will achieve the desired result, but only a term that he will use reasonable care and skill. The surgeon does not warrant that he will cure the

([1975] 3 All ER 99 at 104)

patient. Nor does the solicitor warrant that he will win the case. But, when a dentist agrees to make a set of false teeth for a patient, there is an implied warranty that they will fit his gums: see *Samuels v Davis*.

What then is the position when an architect or an engineer is employed to design a house or a bridge? Is he under an implied warranty that, if the work is carried out to his design, it will be reasonably fit for the purpose? Or is he only under a duty to use reasonable care and skill? This question may require to be answered some day as matter of law. But in the present case I do not think we need answer it. For the evidence shows that both parties were of one mind on the matter. Their common intention was that the engineer should design a warehouse which would be fit for the purpose for which it was required. That common intention gives rise to a term implied *in fact*. To show this I would call attention to the answers which Mr Baynham himself gave in cross-examination. He was asked:

'*Q*. ... from quite an early time what [the contractors] had to produce was a building which on the first floor oil drums could be stored and stacker trucks would be used for the purpose of moving them into position? *A*. Yes.

'*Q*. That was their obligation. Now, let us see what you had to do and let us see if we can agree about this. You were called in by [the contractors] as experts, were you not, called in to design the structural part of the building as constructional engineers? *A*. Yes.

'*Q*. And it was your job, was it not, to produce a building which was going to be fit to be used as a store for oil drums and for stacker truck use? *A*. Yes.

'*Q*. That was what you were being engaged to do and that is what you were being paid your fee for? *A*. Correct.'

Next, the pleadings. In the statement of claim the contractors pleaded that-

'It was an express alternatively an implied term of the said agreement that the [structural engineers'] design should be structually sound and fit for the purpose for which the same was required by [the owners] including in particular the use of fork-lift trucks on the first floor of the said building.'

In the defence the structural engineers said:

'The Defendants admit that it was an implied term of the agreement that their design should be such that the building would be structurally sound.'

That defence was amended on the second day of the trial by striking out that admission, and asserting that the only implied term was to use reasonable care. But that late amendment cannot do away with the effect of the earlier admission regarded as a piece of evidence.

In the light of that evidence it seems to me that there was implied in fact a term that, if the work was completed in accordance with the design, it would be reasonably fit for the use of loaded stacker trucks. The engineers failed to make such a design and are, therefore, liable.

If there was, however, no such absolute warranty of fitness, but only an obligation to use reasonable care and skill, the question arises: what is the degree of care required? The judge said ([1974] 3 All ER at 672, [1974] 1 WLR at 1269):

> 'In the special circumstances of this case, by his knowledge of the requirement and the warning about vibration, it can be said that there was a higher duty imposed on him than the law in general imposes on a medical or other professional man.'

I do think that was quite accurate. It seems to me that in the ordinary employment of a professional man, whether it is a medical man, a lawyer, or an accountant,

([1975] 3 All ER 99 at 105)

an architect or an engineer, his duty is to use reasonable care and skill in the course of his employment. The extent of this duty was described by McNair J in *Bolam v Friern Hospital Management Committee* ([1957] 2 All ER 118 at 121, [1957] 1 WLR 582 at 586), approved by the Privy Council in *Chin Keow v Government of Malaysia*:

> '... where you get a situation which involves the use of some special skill or competence, then the test whether there has been negligence or not is not the test of the man on the top a Clapham omnibus, because he has not got this special skill. The test is the standard of the ordinary skilled man exercising and professing to have that special skill ... It is well-established law that it is sufficient if he exercises the ordinary skill of an ordinary competent man exercising that particular art.'

In applying that test, it must be remembered that the measures to be taken by a professional man depend on the circumstances of the case. Although the judge talked about a 'higher duty ([1974] 3 All ER at 672, [1974] 1 WLR at 1269), I feel sure that what he meant was that in the circumstances of this case special steps were necessary in order to fulfil the duty of care: see *Readhead v Midland Railway Co* ((1869) LR 4 QB 379 at 393, [1861-73] All ER Rep 30 at 39). In this case a new mode of construction was to be employed. The Council of British Standards Institution had issued a circular which contained this note:

> 'The designer should satisfy himself that no undesirable vibrations can be caused by the imposed loading. Serious vibrations may result when dynamic forces are applied at a frequency near to one of the natural frequencies of the members.'

Mr Baynham was aware of that note but he read it as a warning against resonances, ie rhythmic impulses, and not as a warning against vibrations in general. So he did not take measures to deal with the random impulses of stacker trucks. There was evidence, too, that other competent designers might have done the same as Mr Baynham. On that ground the judge seems to have thought that Mr Baynham had not failed in the ordinary duty of care. But that does not excuse him. Other designers might have fallen short too. It is for the judge to set the standard of what a competent designer would so. And the judge, in the next breath, used words which seem to me to be a finding that Mr Baynham did fail. It is a key passage ([1974] 3 All ER at 672, [1974] 1 WLR at 1269):

'I do, however, find that he knew, or ought to have known, that the purpose of the floor was safely to carry heavily laden trucks and that he was warned about the dangers of vibration and did not take these matters sufficiently into account. The design was inadequate for the purpose.'

It seems to me that that means that Mr Baynham did not take the matters sufficiently into account which he ought to have done. That amounts to a finding of breach of the duty to use reasonable care and skill. On each of the grounds, therefore, I think the contractors are entitled to succeeded. They are entitled to a declaration of liability and indemnity. I would, accordingly, dismiss the appeal.

BROWNE LJ. I agree that this appeal should be dismissed for the reasons given by Lord Denning MR. I would emphasis that our decision in this case lays down no general principle as to the obligations and liabilities of professional men. As Lord Denning MR has said, on both points raised by this case our decision depends on the special facts and circumstances of this particular case. If Kilner Brown J intended to lay down any general principle as to the obligations and liabilities of professional men going beyond what they have been held to be in the long series of authorities from

([1975] 3 All ER 99 at 106)

1830 to 1967 cited to us by counsel for the defendants, I do not agree that there is any such wider general principle. In my view the judge's decision ([1974] 3 All ER 666, [1974] 1 WLR 1261) should not be regarded in future as laying down any general principle any more than our decision does.

GEOFFREY LANE LJ. I also agree. No great issue of principle arises in this case. The learned judge ([1974] 3 All ER 666, [1974] 1 WLR 1261) came to the conclusion that the defendants were in breach of two duties which they owed to the plaintiffs. The first is cast by law on every professional man holding himself out as an expert in any particular field, namely the contractual duty as described by McNair J in *Bolam v Friern Hospital Management Committee* ([1957] 2 All ER 118 at 121, [1957] 1 WLR 582 at 586): '... it is sufficient if he exercise the ordinary skill of an ordinary competent man exercising that particular art.' The second duty was cast on the defendants not by law but by virtue of a warranty to be implied from the facts of the case-namely that the parts of the building for which the defendants were responsible for designing would be fit for the purpose required, namely storing oil drums and for stacker tracks loaded with oil drums to travel thereon.

So far as the former duty is concerned-that implied by the law-the difficulty has arisen very largely from the way in which the learned judge expressed his finding. The material passage ([1974] 3 All ER at 672, [1974] 1 WLR at 1269) has already been read by Lord Denning MR. At first sight he does appear to be saying that there is implied by law a higher form of duty than that set out in *Bolam's* case, a duty which is nevertheless lower than a warranty. If the learned judge indeed had said that, it would have been wrong; because there is no such duty. We are told by learned counsel that neither side at the trial advanced such a proposition, and I do not believe that the judge was intending to say that there was such a duty. What he was intending to convey was that there may be special circumstances in any particular case which require the reasonably careful expert to take special steps before his duty under *Bolam's* case can be said to have been discharged. The learned judge is saying that this is just such a case, because the defendants knew what the requirements of the plaintiffs were in respect of this building; knew that the type of building (that is to say a composite construction building) was new; knew or ought to have known from the publication CP 117 British Standard Practice of 1965, that in a building of this sort there might very well be grave problems caused by vibration. The learned judge is saying that in those particular circumstances the defendants should have taken extra steps by way of precaution. The fact that they did not do so meant that they had not measured up to the requisite standard.

So far as the implied warranty is concerned it was suggested that to uphold the judge's finding of implied warranty in this case would mean that every professional man would be warranting the successful outcome of his endeavours. Nothing of the sort. All the judge was in fact saying was that

on the facts proved before him a warranty was to be implied that the building as designed by the defendants would be fit for the purpose which the plaintiffs stipulated; and one has only to read those passages in the evidence to which Lord Denning MR has already referred and also the defence as originally drafted to see that there was ample evidence on which the judge could come to the conclusion that he did.

The suggestion that by reason of this finding every professional man or every consultant engineer by implication of law would be guaranteeing a satisfactory result is unfounded.

For these reasons I would dismiss the appeal.

Appeal dismissed.

Solicitors: *Rowe & Maw* (for the defendants); *Kingsley, Napley & Co* (for the plaintiffs).

Wendy Shockett Barrister.

([1975] 3 All ER 107 at 107)