HOUSE OF LORDS.

Monday, July 23.

(Before the Lord Chancellor (Finlay), Lord Dunedin, Lord Shaw, Lord Parker, and Lord Wrenbury.)

CALEDONIAN RAILWAY COMPANY *v.* GREENOCK CORPORATION.

GLASGOW & SOUTH-WESTERN RAILWAY *v.* GREENOCK CORPORATION.

Property—Reparation—Negligence—River—Burgh—Operations in Alveo Fluminis Causing Damage to Lower Heritor—Damnum Fatale.

A burn in a slight depression ran alongside of, but at a lower level than, a public road in a burgh. The burgh corporation, having been given the valley of the burn, which it used as a park, constructed a culvert to carry the burn and levelled up the valley so that the roadway became the lowest point on the surface. An exceptionally heavy rainfall occurred lasting over an hour. The roadway became flooded, and the water, sweeping down the incline of the road, in one place went to swell the water collecting behind the retaining wall of a railway in cutting, which fell, and in another place carried away a garage and with the debris drove against the mouth of a culvert under another railway and the railway wall, and that wall also fell.

Held, on the basis that the culvert in the park had proved unable to receive the water coming to it and that an overflow had occurred at its intake prior to the damage being done to the railway property, that the Corporation was liable in damages.

Held also, by Lord Wrenbury, that even if the overflow at the intake of the culvert took place subsequent to the damage to the railway property, the Corporation was liable in damages inasmuch as the result of their operations was, irrespective of the overflow, to increase the water running on the road by water which would but for their operations have been safely carried away in the valley of the burn.

Per the Lord Chancellor—"It is the duty of anyone who interferes with the course of a stream to see that the works which he substitutes for the channel provided by nature are adequate to carry off the water brought down even by extraordinary rainfall, and if damage results from the deficiency of the substitute which he has provided for the natural channel he will be liable. Such damage is not in the nature of *damnum fatale*, but is the direct result of the obstruction of a natural watercourse by the defenders' works followed by heavy rain."

Authorities reviewed.

The Caledonian Railway Company, *pursuers*, brought an action against the Corporation of Greenock, *defenders*, to recover compensation for damage done to their property by flooding due as averred to the operations of the defenders on the West Burn of Greenock in their Lady Alice Park. The Glasgow and South-Western Railway Company, *pursuers*, brought against the Corporation of Greenock, *defenders*, a similar action. The two cases were taken together.

The defenders *pleaded*—"3. The damage complained of not having been due to the operations or fault of the defenders, the defenders should be assoilzied from the conclusions of the summons. 4. The damage complained of having been due to causes other than defenders' operations, and for which the defenders are not responsible, the defenders should be assoilzied. 5. The defenders should be assoilzied in respect that the whole damage complained of would have accrued irrespective of the defenders' operations. 6. The damage complained of having been caused by *vis major* the defenders are entitled to absolvitor."

The *facts* gave rise to great diversity of opinion in the Inner House, but in the House of Lords the statement of them by the Lord Ordinary (DEWAR) was accepted as substantially correct and it will be found *infra* in his opinion.

On 11th May 1914 the Lord Ordinary pronounced interlocutors finding the defenders liable in certain sums to the pursuers and in expenses.

Opinion.—Caledonian Railway Case—"This is an action of damages at the instance of the Caledonian Railway Company against the Corporation of Greenock. The circumstances in which the action has been brought are as follows, viz.:—

"On the 5th August 1912, owing to a very heavy rainfall, a stream which flows through Greenock—known as the West Burn—overflowed its banks, and a large volume of water passed down the streets of the town causing much damage to various properties. In particular it undermined and displaced a retaining wall at Greenock West Station, and otherwise damaged the pursuers' property. For this damage they claim reparation, and the ground of liability is that the flooding was caused by certain works which the defenders executed in and near the channel of the stream, and which are alleged to have been so constructed as to interfere materially with the natural flow of water, and were inadequate in form, disposition, and design to deal with and carry away the volume of water caused by heavy rain.

"The West Burn comes from hilly ground lying to the south-west of Greenock and enters the town at the park called the 'Lady Alice Park,' about 800 yards to the south-west of the railway station. Until a few years ago it flowed through this park for a distance of about 400 yards in a little valley. The channel of the stream was considerably below the surrounding ground which drained into it, and in particular was below the level of Inverkip Road, which lay

on its north bank. In the year 1908 this little valley was presented to the town of Greenock, and the defenders, with a view to effecting a city improvement, and forming a playground for children, altered the natural channel of the West Burn and the contour of the ground. They constructed a culvert and enclosed the West Burn in it, and raised the level by depositing material on the top of the culvert. In this way a pleasure ground has been formed, but the valley has been obliterated and the burn buried. The surface of the park now slopes down to Inverkip Road, which has become the lowest level, and is the only channel for surface water which formerly drained into the West Burn, and for any overflow which may come from the burn before it reaches the mouth of the culvert. The lower end of Inverkip Road is called Inverkip Street, and leads down to Greenock West Station.

"In addition to altering the levels in this way the defenders constructed certain works at the mouth of the culvert, which had the effect of seriously obstructing the free flow of water. These works consisted of a concrete paddling pond placed near the mouth of the culvert and constructed in such a manner that the concrete bottom of the pond is 1 foot 7 inches higher than the original bed of the burn. At the bottom end there is a concrete curb or weir 1 foot high to keep the water in the pond. Between this weir and the mouth of the culvert there is an iron grating to prevent children falling into the culvert, and in the mouth of the culvert there are a couple of large iron pipes which discharge surplus water from two of the Corporation reservoirs. At the top end of the paddling pond there is a concrete dam placed across the stream, with a footpath on the top, to give access from Inverkip Road to Brachelston Street, and an opening underneath—8 feet wide by 4 feet 5 inches high—for the passage of the burn. The footway on the top of the dam, and the cope wall of the paddling pond, are both above the level of Inverkip Road.

"It is admitted that these works obstruct about half the flow of water which would otherwise go down the culvert. That is not of importance except in times of high flood. But the rainfall in Greenock is heavy and the West Burn is frequently in high flood. It drains an area variously estimated at from 600 to 800 acres of hill ground, and running transversely across this area there are two canals or 'cuts' which connect some of the Corporation reservoirs, and one of these cuts discharges surplus water into the West Burn. Like all hill burns it rises rapidly in heavy rain; but before the defenders altered the levels and constructed their works it had never caused any damage. Since the alterations were made, however, it has twice overflowed on to Inverkip Road at the mouth of the culvert and damaged property in the town—once in December 1909 and again on the present occasion.

"On the 5th of August 1912 rain began to fall between 10·30 and 11 o'clock in the forenoon. It continued to fall very heavily for one hour and twenty minutes, and in that time 1·87 inches were recorded. As there had been a good deal of rain on the previous day and the ground was already saturated, the West Burn rose rapidly and water rushed down in torrents. The culvert was sufficiently large to carry it all, but it could not reach the culvert on account of the works which had been constructed at its mouth. Within half an hour it overflowed on to Inverkip Road. It flowed down this road in large volume, augmented in its course by surface water from other sources, and particularly from the high ground on the north. As the levels had been altered, and the burn enclosed, the water could not escape, so it went right into the town. Part of it went down Inverkip Street to Greenock Square, where after damaging several shops it entered Greenock West Station and escaped along the railway, which lies in a deep cutting. The other part found its way into a wood-yard and garage premises situated on the south side of Inverkip Road at the east end of the culvert. It accumulated against a wall which separated the garage from an open portion of the West Burn, until the pressure became so great that the wall gave way and the garage and all it contained was swept into the burn. It then carried away a portion of the Glasgow and South Western Railway fence wall and flooded the railway, doing considerable damage to the permanent way. For this damage the Glasgow and South Western Railway Company also sue the defenders in a separate action. And by arrangement between parties it was agreed that both actions should be heard together, and that the evidence, so far as relevant and applicable, should be held as evidence in both cases as if they had been conjoined.

"In these circumstances the pursuers argued that the defenders having constructed artificial works in the channel of a natural stream which interfered with the natural flow of the stream, are *prima facie* liable for any damage caused to property which is attributable to that interference. I do not think that the defenders seriously challenged that proposition—in any case I am of opinion that it is well founded—*Kerr* v. *Earl of Orkney*, 20 D. 298; *Fletcher* v. *Rylands*, L.R., 3 H.L. 330; *Chalmers* v. *Dixon*, 3 R. 461, 13 S.L.R. 299. The defence, or at least the main defence, as I understand it, is that the damage to pursuers' property is not in fact attributable to interference with the flow of the stream, but was caused by surface water coming down the streets of the town from many sources, due to a rainfall so unprecedented in duration and intensity as to amount to a *damnum fatale*, and that the damage would have occurred had there been no interference with the stream at all.

"The part of the defence to which the defenders apparently attached most importance and argued most strenuously was that no amount of care or prudence could have prevented the flooding and the damage—it was caused by an act of God or *damnum fatale*. A great many witnesses were called to describe the rainfall and to give their impressions of its intensity. They explained how it fell in torrents and water rushed

down the streets and sometimes spouted out of the drain pipes. All of them, or nearly all of them, said that they had never seen anything like it in their lives. But I do not think that it is necessary to examine that evidence in detail, because we have an accurate record of the precise amount which fell. A rain-gauge is kept at Prospecthill Water-Works, about a quarter of a mile from Greenock West Station, and Mr Munn, the timekeeper, who took the record, stated—'On the morning of 5th August my note was that heavy rain began to fall at 10·50 a.m. and slackened at 12·10. At that time I ran down to the gauge and measured the quantity and found it to be 1·87 inches.' That is undoubtedly a very heavy and intense rainfall. And the question is, whether in the particular circumstances of this case a rain-storm of 1·87 inches in one hour and twenty minutes may fairly be regarded as so unprecedented an occurrence as to amount to an act of God or *damnum fatale*. Similar questions have arisen in a number of cases in which damage was caused by floods, but I do not think that any rule has ever been laid down which can be generally applied. In some cases an excessively heavy rainfall has been held to be a *damnum fatale*, in others it has not. Each case appears to depend upon its own circumstances. Thus in *Kidston* v. *Caledonian Railway Company*, 31 S.L.R. 564, the Caledonian Railway Company, under Parliamentary powers, cut a deep trench in a Glasgow street in the course of constructing an underground railway. While the trench was open an abnormally heavy rainfall, of about an inch and a half in twenty minutes, flooded it, and in consequence houses facing the street subsided. It was held that in the circumstances the rainfall was a *damnnm fatale*. And in *Tennent* v. *The Earl of Glasgow*, 2 M. (H.L.) 22, where the defender built a march wall between the public road and his park, about a third of a mile from a stream, and owing to an unprecedented rainfall the stream burst its banks, and the water was dammed up against the wall, which after a time gave way, and the accumulated water overflowed the grounds of an inferior heritor, it was held that the defender was not liable in damages. But in neither of these cases was there any interference with the natural flow of a stream. When natural occurrences are interfered with a much higher degree of diligence appears to be required. In deciding *Tennent's* case the Lord Chancellor said (page 26)—'. . . This case differs very much from those which have been cited and relied upon at the Bar. If anything be done by an individual which interferes with natural occurrences, such as, for example, in *Lord Orkney's* case, throwing a dam across the course of a stream, it is undoubtedly the duty of that individual so to construct the work as to provide in an efficient manner not only against usual occurrences and ordinary state of things, but also to provide against things which are unusual and extraordinary.' And Lord Chelmsford (page 28) says—'. . . Lord Orkney erected a dam by which he obstructed and headed up the course of the water. He was bound therefore under those circumstances, interfering with the stream and with another person's right over the stream, to provide against every contingency. And although it was an extraordinary flood in that case which occasioned the bursting of the dam, it was one which he ought to have provided against. He ought to have made the dam capable of resisting any force which might be directed against it.' *Kerr* v. *The Earl of Orkney*, which was thus approved, is reported in 20 Dunlop, p. 298. Lord Justice-Clerk Hope states the principle upon which the judgment was founded, thus—'That principle is, that if a person chooses upon a stream to make a great operation for collecting and damming up the water for whatever purpose, he is bound, as the necessary condition of such an operation, to accomplish his object in such a way as to protect all persons lower down the stream from all danger. He must secure them against danger. It is not sufficient that he took all the pains which were thought at the time necessary and sufficient. They were exposed to no danger before the operation. He creates the danger and he must secure them against danger, so as to make them as safe notwithstanding his dam as they were before. It is no defence in such a case to allege the dam would have stood against all ordinary rains—it gave way in an extraordinary and unprecedented fall of rain which could not be expected. . . . When an operation is made which involves great risk to the safety of life and of property the condition on which alone that can be allowed which causes such risk is complete protection.' That is a very stringent doctrine, and although, perhaps, later cases do not go quite so far, still it has never been overruled, and it was applied in a case where the interference with the stream was in a rural district, and much less likely to involve risk to life and property than in the present instance, where the works were constructed in a stream on high ground within a few hundred yards of a densely populated town lying below. No dam was constructed here, but the obstructions placed in the bed of the stream were sufficient (as I shall presently show) to send down in a very short time a volume of water which undermined strong walls and wrecked and demolished substantial buildings. No life was lost, but if it had happened at night there might have been serious loss of life. But for the vigilance of the stationmaster, who promptly stopped the trains, the results might have been much more serious than they were. To interfere with the natural flow of a stream so situated is a very serious matter, and requires special care and prudence. It should not have been done without exhaustive inquiry and consideration. In such circumstances a plea of *damnum fatale* ought to be critically examined. 'If a man puts upon his land a new combination of materials, which he knows, or ought to know, are of a dangerous nature, then either due care will prevent injury, in which case he is liable if injury occurs

for not taking that due care, or else no precautions will prevent injury, in which case he is liable for his original act in placing the materials upon the ground'—*per* Lord Justice-Clerk Moncreiff in *Chalmers* v. *Dixon*. Of course if the defenders proved that the rainfall was a 'miracle of nature,' or such as 'no human foresight can provide against, and of which human prudence is not bound to recognise the possibility,' that would excuse them. But it was not of that character at all. If their burgh surveyor, who designed the works, had consulted 'British Rainfall'—a well-known annual publication which contains full information regarding British rainfalls—he would have discovered that a rainfall of 1·87 inches in an hour and twenty minutes is by no means unprecedented. There are a large number recorded much greater in total and much more rapid per hour. Mr Carl Salter, assistant director of the British Rainfall Organisation, who was a witness for the defenders, states in cross-examination — 'There are three standards in "British Rainfall" called respectively "noteworthy," "remarkable," and "very rare" falls. The upper limit of the lowest of the three grades, namely, "noteworthy" falls, is 1·75 inches per hour; that is for the whole country. The lower limit is about 1 inch per hour. The lower of the "remarkable" rainfalls is 1·75 inches per hour, and the upper limit is about 2½ inches. When we get to the "very rare" rainfalls in "British Rainfall" they are the ones that exceed 2½ inches. The rainfall in question is only 1·4 in the hour. (Q) Then I may take it that it occupies about a middle position in the most modest of these three classes of rainfall, namely, the "noteworthy" rainfalls?—(A) If you apply this classification it does . . . In "British Rainfall" there are 11 cases in Scotland recorded during 45 years of a more intense rainfall than this was in Greenock. In the 45 years I have 135 instances, including the whole of England, Wales, Scotland, and Ireland. That is 124 in the rest of the United Kingdom, and 11 in Scotland.' These are only the instances which are recorded, and of course there must have been many more which are unrecorded. Even at the present time there are only 732 recording stations in Scotland, and 4540 for the rest of the United Kingdom, and at many of these, although they give records for 24 hours, the gauges are not read with sufficient frequency to record intensities. All this information was open to the defenders, and if they had considered it before interfering with the stream they would have found that 1·4 inches per hour, far from being 'unprecedented,' was not 'very rare' or even 'remarkable'; it was only 'noteworthy.' An occurrence which is neither 'very rare' nor 'remarkable,' cannot, I think, reasonably be regarded as a 'miracle of nature,' 'such as no human foresight can provide against.' I agree with Mr Ferguson, C.E., who states—'I think a prudent engineer should provide for any rainfall which might be classified as "noteworthy."' It is said that there is no record of a rainfall of similar intensity and duration in Greenock. That may be so, but an occurrence which has happened repeatedly does not become a 'miracle of nature' because Greenock has no record of it. And if a 'noteworthy' rainfall is liable to occur in Greenock at any moment—as it undoubtedly is—it is not sufficient for the defenders to say—'We had hitherto no personal experience of it.' And if they relied entirely on their own record when interfering with the flow of the West Burn I think that was very imprudent. It does not even profess to record the rainfall completely. The rain gauge was never examined during the night. Indeed the evidence shows that even now exceptional rainfalls are only noted when the workman who attends to it is not otherwise engaged. There may have been, and probably were, many very intense rainfalls in Greenock which were never recorded at all. And even the records which have been produced show that at times rain falls in Greenock very abundantly and with great intensity. On fifteen separate occasions from 2 to 4 inches fell in twenty-four hours. On several occasions it fell for short periods with as great or even greater intensity than on 5th August 1912. The defenders had no reason to suppose that rain-storms which frequently occurred elsewhere in this country might not on occasion visit Greenock. I am therefore of opinion on the evidence that this was not a *damnum fatale*, even if the standard—which the defenders argued was the true test—be taken, viz., could it have been reasonably anticipated? I think it could.

"The next question is—was the damage caused or materially contributed to by the water which was projected on to the Inverkip Road by the works at the paddling pond, or was it solely caused—as the defenders allege—by surface water which came from many directions? It is proved that a large quantity of surface water flowed down various streets and found its way to Greenock Square. It is not possible to ascertain the exact amount, nor can one say with certainty what might or might not have happened if this had not been augmented by the volume which came down Inverkip Road. But I am of opinion, on the evidence, that it was not sufficient in itself to cause the damage which was done. In the first place, if surface water did it, it is the first time that Greenock, or, so far as the evidence goes, any other town, suffered from surface water in a similar manner. Then it is significant that there was no damage except at those points which the water from the West Burn reached. And a great deal of the surface water which the defenders say caused the damage at Greenock West Station never reached the Glasgow and South-Western Railway at all. That damage was caused exclusively by such water as came down Inverkip Road. Indeed it only required a portion of that water to do the damage. Yet that portion was sufficient to sweep the garage premises into the stream and carry one of the motor cars on to the Glasgow and South-Western Railway. Then it was admittedly the water

which was thrown on to Inverkip Road at the paddling pond which damaged property at or about the same place in December 1909. These things are not of course conclusive, but they do, I think, raise a certain presumption against the view which the defenders now present. But they say that the damage was done before the water from the West Burn reached the pursuers' premises. They say that the rain began very shortly before 11 o'clock; that the square was flooded by 11·15, and the station wall fell at 12·10; and that as the water did not overflow at the paddling pond until about 12 o'clock, it could not have reached the square in time to cause the damage in sufficient quantity in the time to materially contribute to the damage. It is difficult to be quite certain of the precise moment when things happened, because most of the witnesses had no occasion to note the time, and only speak, after a long period has elapsed, from a more or less vague recollection. Such general statements about time, especially from witnesses whose attention was otherwise much absorbed, are not of much assistance in fixing the precise moment at which anything happened. But I formed the opinion when hearing the evidence, and after carefully reading it that opinion has been confirmed, that the water from the overflow at the paddling pond did in fact reach Greenock West Station in time, and came in sufficient volume to account for the whole damage. The sequence of events was, I think, as follows:—Rain began to fall at 10·45 and was very heavy at 10·50. At about 11 o'clock it was about 3 inches deep in the Square, and some of it was escaping down the station stair, but not then in large quantities. At about 11·15 it overflowed at the paddling pond and immediately thereafter a very large volume came down Inverkip Road to the Square, which is about 800 yards distant. At 11·50 the stationmaster, Telfer, thought the flood on the line so serious that he refused to allow the train then due to come in. At 12·3 he gave danger signals in both directions and closed the line entirely, and at 12·10 the wall fell. . . . . .

"If I am right in thinking that the overflow arrived in time, there can be no doubt that it came in sufficient quantity to do the damage. Inverkip Road, which is 37 feet wide, was covered knee-deep from side to side. Leslie and Shearer state it was like a river, and coming with such velocity that they could not go against the current. In less than a couple of hours it deposited from 80 to 100 tons of debris on Inverkip Road at the point where it meets Bow Road, a short distance below the paddling pond. It is true, as the defenders pointed out, that all of this volume had not been projected on to the road by the works which the defenders had constructed in the stream. Some of it had probably overflowed from the West Burn before it reached the paddling pond, and some of it was surface water which came down Bow Road from the cemetery, which lies to the north. But I do not think that this helps their case. If they had not altered the levels and obliterated the valley all this volume—or at least the great bulk of it—would have found its way to the West Burn and been safely carried away. No doubt an inferior tenement is obliged to receive the surface water which falls from a superior tenement, and even if the owner of the superior tenement should increase the burden in the natural use of his property by draining his lands or otherwise improving them, the inferior tenement must accept that increased burden. But the superior owner is not entitled to increase the burden unnecessarily or unreasonably. He may protect or improve his property, but he must always have due regard to the rights and interests of his neighbours. The defenders may have been entitled to improve their property by culverting the stream and raising the level of the park, but they could easily have done that if they had exercised reasonable care without danger to anybody. It is, no doubt, important and desirable to improve city property and provide pleasure grounds for children. But the first consideration, especially for those who have charge of the administration of a large town, surely ought to be reasonable protection for life and property. I doubt whether the defenders ever considered what effect their interference with the stream and alteration of the levels was likely to have in very heavy floods. In any case I think it is out of the question for them to argue that they were entitled to bury the burn, which from time immemorial had carried flood waters safely to the sea, and to alter the levels so that the public highway leading, on a descending gradient, into the town became the only means by which these flood waters could escape. It is suggested on record, but I heard very little argument upon it, that they were acting under parliamentary powers, and are therefore in a different position from an ordinary proprietor. But I do not think that Parliament gave them power to deliver flood waters in disastrous quantities into the pursuers' railway station.

"The next defence presented was that the retaining wall which collapsed at Greenock West Station was defective and faulty in construction, and that the pursuers are in any event guilty of contributory negligence. The averment on record (answer 2) is—'In particular it was too light in construction, and no provision, or in any event no adequate provision such as is usual and necessary, was made for water drainage or the passage therethrough of water.' An attempt was made to establish this—the pursuers' witnesses were cross-examined on it at considerable length, and some of the witnesses for the defence expressed opinions upon it—but no substantial case was made out. . . . . .

"I come now to the question of negligence in relation to the construction of the works. Although the pursuers argued that negligence on the part of the defenders must in the circumstances be presumed, they did not rely exclusively on that plea, but led evidence to prove—and I am of opinion that they succeeded in proving—that the defenders did not sufficiently take into considera-

tion and make provision for the maximum amount of water which might reasonably be expected to come down the West Burn in time of flood. . . . . .

"If I am right in thinking that the defenders are liable, the only remaining question is as to the amount of damages. The pursuers claim £4686, 7s. 2½d., and have put in detailed accounts showing how that amount is made up, and have invited the defenders to inspect their books. The cost of rebuilding the wall is £3889, 17s. 6d.; expenditure and loss of traffic, £755, 14s. 1d.; and loss of rental of property, £40, 15s. 7½d. The defenders do not dispute that substantial damage was done, and they admit that pursuers' charges so far as they are not merely estimates are accurately set forth in the accounts. But they maintain that deductions ought to be made on the following grounds, viz.—(1) The cost of superintendence and engineering is over-estimated; (2) The new retaining wall is much more costly and stronger and better than tbe one which collapsed; (3) That the loss of traffic is largely over-estimated. They estimate the total loss and damage at £3135. There is thus a difference of over £1500 between the two estimates. I think there is force in the defenders' criticism on some of the points, but the difficulty is that they have offered little or no evidence in support of it. Apart from cross-examination, practically the whole case is contained in one page of Mr Duff's evidence. In these circumstances it is not easy to deal with the question in a satisfactory manner. This was acknowledged by both parties at the hearing, and they intimated that they would make a further attempt to adjust the amount of damages as had been done in the Glasgow and South-Western Railway case. But as I have heard nothing further I presume that their attempt has failed, so I must decide the question in the best way I can with the material at my disposal. I have not much difficulty with regard to the sum claimed for superintendence and engineering. The pursuers have shown in detail how that is made up, and I think it is estimated on a fair principle and appears to be reasonably charged. With regard to the new wall, it is, no doubt, much stronger and better and more costly than the one which collapsed. But the ground behind which it had been built to retain was washed away, and the new wall had consequently to be made thicker and stronger. Although it was more costly it only serves the same purpose as the old one. Still, the defenders have now a new wall, which will probably last longer and for a time at least cost less to keep up, and I think some deduction from the account may fairly be allowed on this ground. I propose to allow £250. The claim for loss of actual traffic is based on the assumption that as the defenders could only use a single line for a considerable period passengers would decline to travel on account of the inconvenience and delay. There was a falling-off of traffic in August, September, and October 1912 as compared with the same months in 1911, and the pursuers attribute the falling-off entirely to this cause. That is possible, but some of it at least may have been due to other causes. Then the charge for "estimated loss of increase of traffic" is, I think, a little remote and fanciful. I think it is proved that the pursuers suffered substantial loss of traffic, but the evidence is not conclusive that it amounted to the £600 which they claim. It is not possible to say with any confidence what the precise loss really is. But looking at the matter broadly I think I shall not be doing injustice to either party if I deduct one-half, viz., £300. This sum, together with the £250 which I have already allowed, deducted from the pursuer's claim of £4686, 7s. 2½d., leaves a balance of £4136, 7s. 2½d., and I grant decree for that sum with expenses."

Glasgow and South-Western Railway Case.—"In the case of the Caledonian Railway Company against the Corporation of Greenock, which arose out of the same subject-matter, and was heard along with this case. I considered and decided all the questions which were commcn to both cases, and it is not necessary to go over the same ground again, but there is a question of fact in dispute here which requires separate consideration.

"In the Caledonian case, to which I refer, I described how the volume of water which came down Inverkip Road divided into two portions when it reached a point lying a little below the east end of Lady Alice Park. One portion went down Inverkip Street to Greenock West Station, and I held that the defenders were responsible for the damage it caused there. The question of their responsibility for the other portion now arises, or rather the question is whether that portion damaged the pursuers' property. If it did, then it follows if I am right in the decision which I have already given, that the defenders are liable.

"The pursuers' case is that it came down Inverkip Road and found its way into a firewood factory yard and garage premises situated on the south side of the road, and accumulated against a wall standing between the garage and an open part of the West Burn, until the pressure became so great that the wall and the garage were carried into the stream. As the pursuers' railway is immediately below, and is carried across the stream by a culvert, part of the debris blocked the mouth of this culvert. The water, unable to escape, then dammed up against the railway fence wall, which is on the top of the culvert, until the pressure from the water and part of the debris became so great that the wall collapsed, and the water rushed on to the railway doing very considerable damage.

"The defenders admit that water came down Inverkip Road and entered the yards and washed the garage into the stream. But they deny that it was this water which damaged the pursuers' property. They say that the railway was flooded because the culvert which the pursuers had built to carry the line across the stream was not sufficiently large to permit the stream in its flooded state to pass through, and that in consequence the water in the stream was

dammed back until it rose sufficiently high above the mouth of the culvert to carry away the railway fence wall. I do not think they dispute that the culvert was blocked—a motor car among other things was found in its mouth when the flood abated—but they say that the railway fence wall had collapsed before this happened.

"The defenders' case very largely rests upon the evidence of two witnesses, Davey and Green, who observed the flood from windows of neighbouring houses. They both say that the stream was so full that it was unable to escape through the culvert and became dammed up against the railway fence wall before the garage fell. And Green says that the railway wall fell first. I think they are both mistaken. I have no doubt they describe what they saw, or thought they saw, to the best of their recollection, but they had no particular reason to note the sequence of events, and I am satisfied on the evidence that the flooding which they saw came after and not before the collapse of the garage. . . . . .

"On the whole matter I am of opinion that the pursuers have succeeded in establishing their case, and as parties have agreed that the damages should be assessed at £998, 5s. 8d. I grant decree for that sum with expenses."

The defenders reclaimed to the First Division of the Inner House. After the cases had been argued before the Division minutes of debate were ordered to obtain the opinions of all the Judges. These were, by a majority of seven to six in the Caledonian Railway Company's case, and of ten to three in the Glasgow and South-Western Railway Company's case, in favour of the Lord Ordinary's decision, and in conformity therewith the Division, on 8th July 1916, pronounced interlocutors adhering.

In their *opinions* their Lordships of the Court of Session said—

LORD PRESIDENT—*Caledonian Railway Case*— . . . I sum up the broad, and I think the incontrovertible, aspects of the case, which it is well to bear in mind before proceeding to a detailed examination of the evidence, thus:—*First.* On the day in question Greenock was visited by a phenomenal and (in the locality) unprecedented rainfall, which, following an exceptionally heavy rainfall on the day previous, in a few minutes overpowered the drains and flooded the streets of the town. *Second.* Although the water which overflowed from the burn found its way down Inverkip Road to "the Square," there is no evidence to show that any water flowed from "the Square" into the yards behind the Roxburgh Street houses. *Third.* The vital question is not that to which for the most part the evidence was directed—the ponding up of water in "the Square." "It is a question of getting the water behind these particular premises which were abutting on the retaining wall." *Fourth.* The water which flowed into these yards and brought down the wall came from a higher level than the level at which the water stood in "the Square." *Fifth.* The wall was not carried away by a sudden rush of water but by hydrostatic pressure exerted continuously for a considerable period of time prior to its fall, the ground behind the wall having been saturated by an exceptionally heavy rainfall the day previous to the disaster. *Sixth.* The water which ponded up in the yards behind Roxburgh Street houses and ultimately brought down the wall reached its maximum height in ten or fifteen minutes after the heavy rainfall commenced, and at least half an hour before the earliest point of time at which the overflow of the burn is alleged to have taken place. *Seventh.* This water came from streets leading down to Roxburgh Street from high ground to the south, and was in quantity more than ample to do the mischief. And *Eighth.* While the hour at which the wall gave way is fixed with reasonable accuracy at 12·10 p.m., there is no evidence regarding the precise time at which the overflow from the burn took place, and hence no possibility of establishing from sequence in time the relation of cause and effect between the overflow of the burn and the fall of the wall. . . . .'

. . . [*His Lordship reviewed the evidence*] . . . .

In short, I think it is proved that the overflow at the paddling pond neither caused nor appreciably contributed to the mischief done by the water to the wall—(*first*) because the water from the burn overflow did not and could not reach the yards behind the houses in Roxburgh Street, and (*second*) because the wall gave way before the overflow occurred. These conclusions are substantially the same as I draw from the evidence given for the pursuers. I can find no material conflict among the witnesses to facts on both sides, nor so far as I am able to judge is there any marked tendency to exaggeration. If these conclusions are well founded, then it is unnecessary to consider the other important questions raised in the case, for the cause of action undeniably fails. But as these other questions were very anxiously argued, and much of the evidence was directed to their elucidation, I think it right to express the views I have formed upon them.

Even then had I reached a different conclusion on the question of fact my verdict would have been in favour of defenders, for I am of opinion that they have succeeded in showing that the damage done was caused by *vis major*, and hence that their sixth plea-in-law ought to be sustained. The evidence on this head appears to me to be singularly strong and convincing. I propose to examine it with some care. It merits minute attention. So far as I can judge this is the strongest case for the application of the doctrine of *vis major* to flooding which has come before the Courts. Of the numerous authorities quoted the nearest to the present case are, I think, *Nichols* v. *Marsland*, (1876) 2 Ex. D. 1, and *Pirie* v. *The Magistrates of Aberdeen*, (1871) 9 Macph. 412, 8 S.L.R. 302. In neither was any new law laid down. Nor can I find in any of the numerous cases cited at the debate anything decided which conflicts with the law enun-

ciated in these two cases. That law I take to be that the defenders in constructing their works are bound to see to it that they were capable of conveying all the water which might flow into the burn in consequence of "all such floods and rainfalls as might reasonably be anticipated to happen in that locality"—Lord Penzance in *Fletcher* v. *Smith*, 2 A.C. 781, at 787. If the flood was so excessive that it could not have been reasonably anticipated, then although its effect might have been prevented if it had been anticipated, nevertheless the defenders escape liability. But if the flood "had not been greater than floods that had happened before and might be expected to occur again," the defenders would not escape liability—L. J. Mellish in *Nichols* v. *Marsland*, 2 Ex. Div. 1. Against unusual and extraordinary floods I think the defenders were bound to provide, but not against totally unprecedented floods. As was observed by Lord Ardmillan in *Potter* v. *Hamilton and Strathaven Railway Company*, (1864) 3 Macph. 83, at 86, "a party who makes a new work is bound to protect those on a lower level from extraordinary as well as ordinary accumulations of water, provided they be not such as to amount to an unprecedented event so improbable and unnatural as could not have been reasonably anticipated." And in applying this law to the case of *Pirie* v. *Magistrates of Aberdeen* Lord Neaves said—"As to the flood, I think it was more than merely an 'extraordinary' one It seems to have been a totally unprecedented one. And this rather goes to strengthen the case of the defenders, because even supposing that some responsibility attached to them, it removes this occurrence from the class of things which might have been expected to happen in the course of nature and which should have been provided against." My opinion then is in conformity with the law laid down in the two cases I have mentioned, that "a claim for reparation can only arise where the event causing the damage is shown to be such as might reasonably have been foreseen and guarded against by the exercise of ordinary care in the construction of the works"—Lord Justice-Clerk Moncreiff in *Pirie* v. *The Magistrates of Aberdeen*. When I speak of the defenders' "works" in this connection, I ought to say that I refer to the concrete bridge across the burn. It is on the sufficiency or insufficiency of the opening at that bridge to pass the burn water that the whole controversy depends. This I shall subsequently show. And of course the construction of a bridge to carry a path across a burn is an everyday operation of the commonest kind. But even if the culverting of the burn at all was "the work" challenged, I would state the legal proposition in exactly the same way. For this burn, prior to the defenders' operations, passed through Greenock for the most part in culvert. And as Mr Hogg, one of the pursuers' experts, says—"It is quite a common incident within burghs to have culverts over streams. There are several cases of that kind in Glasgow, and in plenty of other towns. We have them in all the cities." In considering the evidence given in support of the defence of *vis major* I freely allow that the Court ought to be chary of admitting a plea which it may be said "tends to paralyse human energy and foresight." But I cannot think that if we sustain the plea in the present case any such result will follow, for it is common ground that, judged by its consequences, nothing approaching the flood experienced on the 5th of August 1912 had ever before occurred in Greenock or the neighbourhood. . . . . .

As I differ from the conclusion reached by the Lord Ordinary in this case, and as our divergence of view arises on the facts and not on the law, I have thought it right to examine the evidence at length. Its credibility on both sides I do not question. It appears to me to be characterised by remarkable fairness and little exaggeration. Where exact times are not given by any of the witnesses, it is, I consider, unsafe to build up any theory of the case which depends for its reliability on exact hours being taken. I am unable to accept the view that the overflow took place earlier than twelve noon on the day in question, or that but for the overflow the retaining wall would not have fallen. . . . On the contrary, I consider that the evidence shows clearly that the overflow did not take place until at the very earliest twelve noon, and probably somewhat later, that the water which reached the back of the retaining wall and finally did the mischief attained its maximum a considerable time before the overflow occurred, and that there is no evidence at all to show that overflow water from the burn ever reached the ground behind the wall. The pursuers have therefore failed—indeed they have not attempted—to show that but for the fault of the defenders the wall would not have been fractured. On the contrary, I think the fair result of the evidence given on their behalf is to demonstrate that within twenty minutes after the rainfall began the accumulation of water was so great as to displace the wall, and that even if the very excessive run-off of 60 cubic feet per minute per acre had been provided it would not have proved adequate to prevent the overflowing of the burn. . . . .

Glasgow and South Western Railway Case.—If the opinion I have expressed in the action at the instance of the Caledonian Railway Company be sound, then it follows that the defence in this action ought to be sustained. For I have held on the evidence (1) that the defenders' works provided adequate means for the passage of any water which it might reasonably be anticipated would flow down the West Burn, (2) that the mischief done was directly attributable to *vis major*, and (3) that the overflow of the burn at the paddling pond did not occur until about quarter-past twelve o'clock. . . . . .

The downfall of the garage took place at the latest about 11·40 a.m. If that time be approximately correct, then it follows that the defenders must succeed. Indeed, the case for the pursuers, as presented on the evidence and in argument, rested on the

assumption that if Inverkip Road was flooded then there must have been an overflow at the paddling pond. . . . It is certain that such an assumption cannot be accepted, for the defenders have clearly proved that a heavy flood of water might and did on other occasions come down Inverkip Road when there was no overflow at the paddling pond. I hold then that the direct evidence to the effect that there was a heavy stream of water coming down Inverkip Road long before the burn at the paddling pond overflowed is strongly supported by uncontradicted expert testimony.

Even therefore on the assumption that the downfall of the garage preceded the downfall of the wall, for the reasons which I have given I am constrained to differ from the conclusion at which the Lord Ordinary has arrived. My verdict in this case also is for the defenders.

LORD JOHNSTON — On 5th August 1912 Greenock was visited by a most exceptional, and it may even be said so far as local memory runneth not to the contrary, unprecedented rainstorm. Damage was done to many properties in the town, including the lines of the Caledonian and Glasgow and South-Western Railway Companies. It is sought to render the Magistrates and Town Council responsible for the damage, and actions have been raised at the instance of these companies to constitute and enforce the alleged liability. If successful it is fully understood that they will be followed by a multitude of other claims.

Though it was possible to arrange to take a conjoint proof, yet as the question of liability proves to run on entirely different lines in the two cases, it is I think necessary to keep their consideration entirely separate. The Caledonian is the leading, and for the present I take it as if it were the only case.

The Caledonian Railway Case.— . . . Did the decision of the case depend upon consideration of the pursuers' grounds of action alone the ascertainment of the necessary facts would be a comparatively easy matter. The Corporation, however, while they meet the Caledonian Company's case with a direct denial, present this primary or conclusive defence, viz.—Assuming, without admitting, our absolute responsibility for the sufficiency of our works, and assuming also that our works in design and construction were defective, and that in consequence flooding from them ensued, still the damage complained of was not the result of such flooding, but would have equally occurred if our works had not been in question at all.

The precise way in which the defenders plead this defence is — "5. The defenders should be assoilzied in respect that the whole damage complained of would have accrued irrespective of the defenders' operations."

In support of this defence the Corporation do not raise the question of anyone else being in fault. They found on the natural effect of extraneous circumstances, for which no one was accountable. These were, speaking generally, that the unprecedented rainstorm of 5th August 1912, striking the whole of Greenock almost *unico contextu*, flooded the lower part of the town where the pursuers' station is at a very early point of time, and produced a condition of matters which in itself was sufficient to account, and does account, for the fall of the pursuers' retaining wall, and that any contribution there might have been from overflow from their works at the West Burn came too late to contribute to the damage. The defenders deny indeed that water from their pond overflowing on to Inverkip Road reached the point of danger before the fall of the pursuers' retaining wall. But assuming that such water did, in combination with water coming from other quarters, viz., from the area drained by the burn above the Corporation pond, from Bow Road and Greenock Cemetery between the Corporation pond and the company's station, and more particularly from the higher ground to the west and also to the south of the station, reach Greenock West Square, and so contribute to its flooding at some point of time prior to the collapse of the wall in question, the defenders deny that this contribution had anything to do with the fall of the wall, which was already the inevitable result of prior flooding from natural sources, or at least from causes for which no one was responsible. The intervention of such causes raises, I think, a novel situation in law. If two wrongdoers both contribute to an injury to property, there is no call in a question with the party injured to inquire as to the proportion of their contribution to the mischief, yet *inter se* there is a right of relief among those responsible for the wrong done. But where there have been causes at work for which no one is responsible, and there is also proved to have been individual wrongdoing, it is impossible in equity to throw the whole liability on the individual wrongdoer without first showing that his contribution to the mischief was not only a contribution in fact but was also a necessary element in effecting the resulting damage. I do not therefore think that it can be held in equity that defenders in the position of the Greenock Corporation must necessarily be liable because they contributed along with causes for which no one is responsible to an injury, unless it can also be shown that such other causes were not in themselves sufficient to effect the injury. Still less can it be so held if the contribution of defenders in the position of the Greenock Corporation is merely, as alleged by them, what may be termed an accession after the fact. The view I take therefore of the law of the case is that the Caledonian Railway Company as pursuers are bound to establish positively that the damage which they sustained was either entirely occasioned by the defenders, or was so materially contributed to by them, that without their interposition the damage would not have occurred—in other words, to establish positively, and not by presumption and general inference, that the defenders contributed, and that their contribu-

tion was *sine qua non* of the damage. I am of opinion that the pursuers have failed in so doing. . . . . .

I shall now deal shortly, *firstly*, with the law of the case, and *secondly*, with the pursuers' attack upon the design and execution of the defenders' operations in culverting the burn and creating the small pond at the intake of the culvert.

First, as regards the law I think the Lord Ordinary has stated it very fairly. Where a riparian proprietor executes any operation which interferes with the natural flow of a stream through his lands, either by way of impounding water or of confining the course of water artificially, though he is quite entitled to do so for his own benefit, he is, I think, under obligation to see that his operations impose no further burden upon his neighbours than did the natural condition of things before he proceeded to execute his design. I do not think that there is any difference in the obligation between the case of collecting and impounding water and that of deflecting or culverting a stream. Nor do I think that there is any question of degree. He is not entitled to say, "I have provided for what I might have reasonably expected." If flooding ensues, either by the burst of a dam or by the inadequacy of the culvert to carry the water which nature offers to it, or by any other insufficiency of works in design or construction, I do not think that it is any defence to say, "This flood is unprecedented; I did all that any reasonable man would, and I was therefore guilty of no negligence." I do not say that what the defenders describe as a *damnum fatale*, but which is better designated as *vis major*, may not introduce an exception to this rule; but be it so, it leaves to be determined what is meant by *damnum fatale* or *vis major*. To take an extreme case, I can understand that an earthquake, if it caused the collapse of a dam, would properly be held as excusing from liability—it would be truly *vis major*, against which man by no exercise of skill or strength could prevail. But I do not conceive that anything can be regarded as such which is merely excessive in degree though similar in character to natural phenomena which are of constant occurrence. I am quite prepared to accept that the rainstorm which occurred at Greenock on the 5th of August was one of most extraordinary violence, and that in combined intensity, duration, and concentration for an exceptionally long time over an exceptionally wide area draining into a central depression, it was, at least so far as living memory in Greenock, unprecedented. On this point the learned counsel for the Corporation present a very forcible argument, and I must say that I was particularly struck with the inference from the fact not only that the modern bridges of access to the two cottages just above the pond proved inadequate to carry the flood on the burn, but that the comparatively ancient bridge on the old or high Inverkip Road, which must have stood the floods of a century at least and probably more, was partly destroyed. But still it was natural rain. It was not a waterspout such as are met with in the tropics, but so far as I know only at sea—in fact I believe that the presence of the sea is a necessary condition of their occurrence. Nor was it a cloud burst, if any such thing really does occur, as for aught I know it may, by which I understand such a disintegration or collapse of a cloud that its contents are discharged in practically solid water. If then it was ordinary rain merely in excess, it does not, I think, found in fact the defenders' plea of *vis major*.

The argument for the Corporation rests somewhat on the analogy of marine insurance and other shipping cases. I do not think that the analogy is a legitimate one. "The act of God" is indeed another way of expressing *vis major*. But the obligation is qualified by the circumstances. The freighter or shipper is facing a risk for his own benefit. It is recognised that all human foresight and provision and all human skill and endurance are unavailing to overcome that risk at its extreme. Yet at its extreme the risk is nothing unprecedented. The condition of the contract of affreightment, then, is that the shipowner takes all risk which human foresight or skill can avoid or overcome, and the freighter or shipper all risk beyond. In the case of accumulation or diversion of water the circumstances are quite different. The one party is active *in suo* and for his own benefit. The other party is passive merely. There is no element of contract.

As the question of law was so anxiously argued I think it right to say that in my opinion the law of Scotland is settled, so far as this Court is concerned, by the case of *Kerr* v. *Earl of Orkney*, 1857, 20 D. 298. Notwithstanding some of the expressions used by Lords Wood and Cowan, I am satisfied that the law laid down by Lord Justice-Clerk Hope was accepted by the whole members of the Inner House and, despite some vague expressions used in subsequent cases, has since remained unshaken. The law of *Kerr* v. *Earl of Orkney*, *supra*, was accepted though not directly affirmed in the House of Lords in *Tennent* v. *Earl of Glasgow*, 2 Macph. (H.L.) 22, and it has the support of the English case of *Rylands* v. *Fletcher*, 1868, L.R., 3 E. & I. App. 330. *Tennent's* case, *supra*, is indeed difficult to understand from the Court of Session report, 1 Macph. 133, though the interlocutor is clear. But the facts are made most intelligible by Lord Westbury, and the law by Lord Chelmsford, in the House of Lords. It is in some respects parallel to the present case. The defenders' property had been recently fenced off by stone walls from two roads, a public and a parish road, at right angles to one another. Through the property a burn ran, which obtained its egress by a culvert under the parish road. Overflow from the burn destroyed the wall bounding the public road. The flood spread over the road and damaged the pursuers' property on the other side. Had the damage been attributable to anything done by the defenders in constructing the egress of the burn at the culvert under the parish road there would have been liability on the

law of *Kerr* v. *Earl of Orkney, supra.* But it was not so attributable. The damage was solely attributable to flooding from the burn bursting or overflowing its natural banks higher up and rushing down on the wall bounding the public road, which it overthrew. This flooding would have occurred irrespective of the defenders' operations, and therefore there was no absolute responsibility, but only liability for any negligence in the construction of the wall. The case therefore, as I have said, illustrates the present in more respects than one.

In *Pirie* v. *Magistrates of Aberdeen*, 9 Macph. 412, Lord Gifford, Lord Ordinary, raises the question, which I think of some materiality in one branch of the present case, viz., whether the general law of upper and lower heritor applies where you have an entirely artificial and municipalised area to deal with.

I am aware that it may be difficult to explain the principle for the distinction drawn in the degree of liability in the two sets of circumstances disclosed in *Tennent* v. *Earl of Glasgow, supra.* But I think that the explanation is to be found in the case of *Chalmers*, 3 R. 461, where the necessity is pointed out of reconciling, or rather discriminating between, two doctrines, viz., first, that every man is entitled to turn his property to such lawful use as he deems beneficial to himself, even though incidentally some injury may accrue to his neighbour; and second, that every man is bound *sic utere suo ut alienum non laedet.* The means of reconcilement or discrimination are to be found in the nature of the use. Is it natural or ordinary and recognised in practice? Or is it extraordinary or exceptional, and under exceptional must be included interference with nature's disposal of water? This ground of distinction will I think be found of use in applying the general law to an artificial and municipalised area.

So far I think that the pursuers make good their case. At the same time I do not depart from my view that the general law of riparian obligation must here be applied in view of the circumstances of the present case, leaving the Corporation's special defence still open.

Second, as regards the design and execution of the defenders' works I also agree with the Lord Ordinary. . . . . .

It becomes necessary, then, first to look at the evidence *pro* and *con* of the pursuers' contention that interference with the flow of water occasioned by the defenders was truly the cause of the damage to the pursuers' railway station, and for the defenders' contention that there were other causes at work sufficient to account for this damage. And here I repeat that it must be kept in mind that the pursuers have to make out their case. . . . . .

It is conclusive that whether the insufficiency of the defenders' works caused the West Burn to overflow and at some point of time to flood Inverkip Road or not, no water was coming into Brachelston Square from that direction or reaching Inverkip Street prior at least to 11·30. It, in conjunction as aforesaid, is conclusive also that prior, and I think considerably prior, to that hour, the flood in Roxburgh Street, which had received no contribution at anyrate as yet from Inverkip Road, but came mainly from its own tributary streets, had entered the shops to the north side of Roxburgh Street, overcome any efforts to stem it, and had passed through the shops and closes into the back premises and yards of the former, and there ponded against the parapet of the pursuers' retaining wall. I can have no doubt, in the absence of something positive to the contrary, that it was during this period that the weepers in the retaining wall were first observed by Mr Telfer to be spouting on to the platform, as the water gradually percolated into the backing of rubbish above and bastard rock below, against which the wall was built, and gradually produced complete saturation and consequent hydrostatic pressure, which in due time would have the fatal effect which actually followed without other assistance. In the circumstances of this flood and of the special construction of this wall, and looking to the exclusive liability which the pursuers seek to establish against the defenders, I look for something more definite to show that not only other help was afforded, but that other help was needed, to compass the destruction of the wall, than the mere fact that flood water from other sources, and *inter alia* from the defenders' works, reached the Station Square *via* Inverkip Road prior to the actual fall of the pursuers' wall. I put it this way purposely, because giving all weight to the pursuers' evidence there is a noticeable want of anything definite to show that the Roxburgh Street flood was indebted either for increase or continuance to water coming down in the later part of the critical period from the Inverkip Road direction.

But here comes in the important consideration of the faulty construction of the pursuers' retaining wall. Suppose that that wall had been sufficiently provided with weepers, suppose also that the parapet wall had, as might not unreasonably have been expected, been supplied with means of surface drainage, there is no reason to suppose that ere the arrival of any water from the neighbourhood of the Corporation pond the retaining wall would have been largely relieved of the pressure occasioned by the earlier flooding, and, *quomodo constat*, that if any accession of flooding did reach it from the burn at the Corporation pond, the same adequate provision for relief would not have been able to cope with it. I take it that the case against the Corporation is truly based on negligence, and if so it may be countered by contributory negligence, and both parties are then in *pari casu.* The Caledonian Company had no doubt statutory authority for their works, and were entitled to make a 26 foot cutting at the place in question. But they were none the less interfering with the natural condition of matters. And their statutory authority was no protection from the consequences of faulty construction of the works which they were authorised to

make. The Corporation again, though they would have done no damage to the company had the latter not interfered with the natural condition of matters, cannot complain of that interference, for it had statutory authority. But they were acting within their rights at common law, and indeed by general though not special statute, and while liable for any negligence in the course of such action, are perfectly entitled to claim the benefit of the plea of contributory negligence, notwithstanding the statutory powers of the party complaining of having been injured by them.

I have dwelt perhaps at too much length on this part of the case, of which the Lord Ordinary takes, I think, somewhat too cursory notice. It supports what is really a prejudicial plea, though a plea depending not so much on law as on fact, and which therefore ought to be first disposed of. But there is another side to the case, which is at once the foundation of the pursuers' claim and would be a counter to the Corporation's defence, viz., the pursuers' positive contention that the main and essential flooding came from the interference with the natural flow of the West Burn at the defenders' pond. There is this difference in the mode in which the case is presented by the two sides:—The defenders do not seek to deny that there was an overflow at their pond, but too late to be a contribution to the damage. And they aver sufficient flooding in time and quantity from other sources to account for all that happened. The pursuers entirely deny or at least ignore the existence of any flooding except from the West Burn at the defenders' pond, and they aver an overflow therefrom which was not only sufficient in time and quantity, but was the sole material cause of the damage. *Arguendo* their counsel of course maintained that, be it there was flooding from other causes, this did not and would not have done the damage but for the accession of force from the flooding from the Corporation's pond, which was therefore the *causa sine qua non*—in fact the last straw. This is very well *arguendo*, but unfortunately the pursuers had not contemplated having to maintain this contention, and their proof, not being consciously directed to support it, is wanting.

This now turns out to be the real point on which the pursuers' case depends. The question of time therefore becomes extremely important. . . . . .

The question in my opinion therefore reduces itself to this. We have distinct evidence of flooding occurring prior to 11·30, but not necessarily ceasing then, from sources different from the general Inverkip Road flood, at the point whence the danger to the pursuers' wall arose, and causing just those symptoms which betoken the probable ultimate collapse of the wall, when they had had time to do their work. We have also evidence, which I accept, of water to which the overflow at the defenders' pond contributed, but which it by no means solely composed, reaching the station area in time, though not much more than time, to be there before the wall actually fell, and if so possibly to aid in maintaining the pressure already overlying the wall. In these circumstances, and where no one is responsible for any of the earlier flooding and no one is responsible for a part of the later flooding, is it sufficient to say to the defenders—"You are responsible, we don't know for how much, but for some of the flood which reached the site of the wall before it fell, therefore you must be presumed to have caused the accident which the prior and independent flooding had failed, and if left to itself would have in the end failed, to occasion, and you are liable for the whole damage that ensued? This is really the ground of the Lord Ordinary's judgment, and of all that is advanced in support of it, and in my opinion it is not enough.

Looking at the case from another point of view, I hold that the primary *onus* of proof is emphatically on the pursuers. If it be held that they have discharged that *onus* by showing that the defenders' pond did overflow, and that water from that overflow did reach the locus of the damage before the latter occurred, then I think that the *onus* shifted back to the pursuers the moment it is shown that a flood such as is here proved to have occurred from other quarters had been considerably beforehand with the overflow complained of, and that it lies on the pursuers to establish that not merely the mixed flood *via* the Inverkip Road, but the defenders' contribution to it, was an essential addition to the flood from independent sources, was in fact the *sine qua non* of the accident and resulting damage. This they have, I think, failed to do.

I stated at the outset that the pursuers put forward a second ground of action in fact, viz., the alteration by the defenders' operations of the levels of the ground comprised in the park and also of the gradients of Inverkip Road alongside of it, which alteration is alleged to have prevented surface water reaching the burn and diverted it to Inverkip Road, and at the same time prevented the road relieving itself of this surface drainage and the flood water coming down the road, at different points within the defenders' land at which formerly it would have found its way into the burn. The fact of such alteration of levels affecting surface drainage is, I think, admitted, and I think it is also admitted or proved that prior to the defenders' recent alterations, including their improvement of the levels of Inverkip Road, whenever that took place, there were points on that road from which, if the road became flooded, some of the flood water might have found escape into the burn within the defenders' lands.

It is not made quite clear what use the pursuers make of this state of facts if true. Assuming that they have proved the insufficiency of the defenders' works, and the consequent overflow and flooding of Inverkip Road, and at the same time have met the defenders' case, in fact they do not need this second string. If they have failed to meet the defenders' case it is no use to them. In the view I take of the case there is no

need to prosecute this aspect of the matter further.

But I can see that they may conceive it necessary to assume that they have failed to establish the insufficiency of the defenders' works, or the overflow and flooding therefrom within the necessary limit of time. They may then say—none the less the road was flooded by surface drainage from the district above the pond, from Bow Road and the Cemetery, and from the Lady Alice Park itself, though *ex hypothesi* not from the pond, all of which would have found an outlet into the burn had things been left in their natural condition.

If the pursuers do not win on the main case, I do not see how they are on the facts to make a case on this line good enough to meet the defenders' proof of prior and independent street flooding. But two direct answers occur to me. In the first place, the defenders did not, so far as I can see, incur any special responsibility towards adjoining landowners and the public generally when they so altered the natural features of their property adjoining the Inverkip Road as to prevent surface water which flowed down that road from finding its way into the West Burn at some point or points where it still remained open between the site of the paddling pond and the firewood factory immediately above Leslie's garage. The liability, if any, incurred by the defenders on this head would have been the same if they had refrained from interfering with the natural channel of the burn, and had contented themselves with building on their own property a wall or houses, which prevented surface water in times of unusually heavy rain from finding its way by undefined channels across the defenders' property from the Inverkip Road into the West Burn. I agree with the argument of the defenders' counsel to the effect that *prima facie* the duty of providing for the removal of surface water from a public road is a matter for the road authority, which is armed with statutory powers enabling it to make due provision for the drainage of its roads, and that an adjoining landowner does not in the ordinary and general case lie under any duty to provide for the passage of surface water across his property in undefined channels from a public road to a burn at a lower level. It was expressly stated by the pursuers' counsel that the defenders were sued solely in respect of breaches of duty, alleged to have been committed by them in their character as landowners, and not for neglect of duty committed in their capacity as the authority in charge of the Inverkip Road.

In the second place, I do not think that the general law which I have accepted from the Lord Ordinary necessarily covers the situation which we here have to consider. Things below the point where the park begins are not in a state of nature. Everything has been rendered artificial. The land is the site of a town and its outskirts, and I cannot hold that where everyone else is using his liberty to improve his property the Corporation necessarily become responsible by reason of their following suit and improving theirs. To begin with, the Caledonian Railway Company themselves have not left things to nature. They have made a cutting 26 feet deep, with a retaining wall across the natural course of the burn, and have carried the burn by an aqueduct across this cutting. Others above have carried the burn in culvert, and in other artificial ways have built over it and built alongside it, and have obstructed the access for flood water from the upper ground into the original line of the burn. I think therefore that where the district has become so entirely artificial, the same absolute liability which may attach to anyone impounding or confining the burn itself will not necessarily attach by reason of improving lands on the bank of the burn. And I would refer to what I have already said in commenting on the case of *Chalmers*, 3 R. 461, at p. 179, *supra*, and to what I say in dealing with the Glasgow and South-Western case, *infra*. Suppose, instead of laying out a public park in the line of the burn and altering the levels of Inverkip Road and the adjoining ground, the Corporation or the owners of the site of the park had found it desirable in the interests of the public to fence Inverkip Road from the area now comprised in the Lady Alice Park with a wall, then still more completely, though the burn was still running in its natural course, must such a flood as occurred in the case in question have been prevented from reaching the burn and have made Inverkip Road its course. It is enough to refer to Mr Leslie's garage, which lay between the park and the Glasgow and South-Western Railway, and was fenced from the road in front and from the burn behind. Consequently water on the road was prevented taking apparently its natural course into the burn. The Corporation are thus alleged to have done in one form and in one place precisely what Mr Leslie has done himself in greater degree in another form and at another place. I think that when one comes to the question I am now dealing with, in the special circumstances which are predicated, liability depends not as in the general case upon what may not inaptly be described as the principle of absolute guarantee, but upon the question of negligence. Did in fact the Corporation improve their ground with the requisite consideration for neighbouring property? That depends upon their being satisfied as to the adequacy of the provision which as road authority they made in the road for carrying off surface water. The drains and sivers throughout the town were universally overpowered in the course of a few minutes by this torrential rain, so were those on the Inverkip Road, but no one says or even suggests that the drainage system of the town, including that of Inverkip Road, was not adequate, and even more than adequate, to meet any demand on it which could reasonably be expected. No negligence being established against the Corporation either as proprietors or as road authority, the Caledonian Railway Company must, I think, if this part of the case requires to be seriously considered, stand the loss involved in the

damage to their own artificial structure, which in its turn interfered with the natural condition of things, and they cannot throw it upon the Corporation any more than upon Mr Leslie.

But the real case is that first dealt with, and on it my judgment may be summed up thus—(1) The Corporation were in fault in the plan and structure not of their culvert but of its intake from the burn comprising both the mouth of the culvert and the pond above it; (2) there was, in point of fact, overflow at their pond on to Inverkip Road at a point of time not very well ascertained, but which cannot on a fair reading of the evidence as a whole be placed earlier than 11·30. This overflow united with water from other sources already flooding Inverkip Road and Street, and so helped to increase or at least to maintain the flooding there; (3) the rain-storm was excessive and unprecedented in fact, but not in law a *damnum fatale* which can excuse the Corporation from any consequence of their negligence; (4) flood water running down Inverkip Road and Street did reach the Station Square, and some of it did pass into Roxburgh Street before 12 o'clock; (5) the station retaining wall did give way about 12·10 p.m. from the hydrostatic pressure of water which percolated into the ground behind it from Roxburgh Street; but (6) though negligence on the part of the Corporation in the plan and structure of their works at the pond is proved, there was negligence also on the part of the Railway Company in the plan and structure of their wall which materially contributed to the accident; (7) and *separatim*, there was in the Station Square and in Roxburgh Street extensive flooding from the area immediately surrounding them to the west and south long before the Inverkip Road flooding reached the Station Square, and still longer before the flooding from the pond contributed to it, which had filled the yards between Roxburgh Street and the parapet of the station retaining wall to the depth of 2 feet, and had fully saturated by percolation the material behind the retaining wall; (8) in these circumstances the *onus* lay on the pursuers to prove that the overflow from the Corporation's pond caused, either by itself or as a contribution *sine qua non*, the injury to the pursuers' retaining wall; and (9) that they have failed to discharge that *onus*.

For these reasons the Corporation are entitled, in my opinion, to be assoilzied from the action against them at the instance of the Caledonian Railway Company.

Glasgow and South Western Railway Case.—As regards the Glasgow and South Western Railway Company's case, this is quite different from that of the Caledonian Company. The burn has been carried by them in an artificial cutting or culvert sunk underneath their line just where that line is crossing Inverkip Road (at the bottom of section 4 of the burn). In addition to placing the burn in a depressed culvert as it passes under their line, which in itself is a potential obstruction, the Glasgow and South-Western Company have fenced their line by a high wall the foundations of which rest on the culvert, and which is in fact an exaggerated parapet from 7 to 8 feet in height, to the low bridge which the culvert forms. The wings of this parapet wall rest upon buildings bounding the burn, and therefore it closes up entirely the natural course of the burn, assuming it to overpower the culvert. Whatever the Corporation may have done, the Glasgow and South-Western Railway Company are thus themselves not guiltless of obstructing the natural course of the burn. They were presumably entitled by their statute to carry their line over the burn, though not to do it in any particular manner, and I cannot conceive that they had any statutory authority for their 7 foot parapet carried from side wall to side wall, of the destruction of which they now complain. Their case is this, that water began to come down Inverkip Road as described by Mr Leslie, the occupier of the garage, which abutted on the burn just above the Glasgow and South-Western Railway Company's line, and whose evidence has already been referred to. They do not trouble themselves as to where this water came from, but assume that it came from the overflow of the Corporation's pond. As it ran down the road it ponded alongside the fence of Leslie's garage and the adjoining buildings, otherwise apparently it would have gone in large measure into the burn. It gradually overpowered the fence and ponded Mr Leslie's and the adjoining yards. Having filled these yards, the weight of water burst the barrier between these yards and the artificial course of the burn, the consequence of which was that not only were a considerable portion of Mr Leslie's buildings, but also a considerable portion of the retaining wall of the burn on which they stood, carried over into the channel of the burn. There is much discrepancy in the evidence as to the precise condition of the burn at the time and the consequence of this collapse of the retaining wall. But the best conclusion that I can come to is that Mr Aldwinckle's account, which I think substantially corresponds with the relative passage in Mr Leslie's evidence, ought to be accepted. He says that what happened was that the fall of the debris from the garage into the burn caused the water of the burn to be dammed back behind it until it had risen to a sufficient height to carry away by its pressure the stoppage, and that, coming down in a wave and carrying all sorts of debris with it, the column of water and debris struck the Glasgow and South-Western Company's wall and overpowered it. It is possible that at the time of impact the Glasgow and South-Western Company's culvert was running already full and water rising on the wall, for there are witnesses who contradict the minimising by Leslie and Shaw of the flow in the burn, but I think it must be accepted that the sequence of events which overpowered and caused the fall of the wall were as described by Aldwinckle, however full the culvert may have been.

Such being, I think, the proved facts, there is no question in the Glasgow and South-Western Company's case of prior flooding from surrounding sources, as in the Caledonian Company's case already dealt with. It is a pure question of whether the defenders are responsible for the flooding of the road, for the flood water getting vent by the collapse of the garage buildings under its pressure, and therefore responsible as a consequence for the fall of the Glasgow and South-Western Company's wall.

It is also seen that the damage to the Glasgow and South-Western Company's wall was not like that to the Caledonian Company's wall. It was a matter rather of hydrodynamic than of hydrostatic pressure.

This consideration may admit of a discrimination between the case of the Glasgow and South-Western Company and that of the Caledonian.

I have already ventured the opinion that the law of *Kerr* v. *Earl of Orkney, supra*, requires to be applied with due consideration of circumstances, and the special circumstances here are an area wholly artificial and municipalised. One result, in my opinion, is that those who have themselves, in accordance with the trend of these special circumstances, dealt artificially with the burn and its banks within or *ex adverso* of their own property, cannot complain of similar action by others, provided that action is ordinary and recognised in practice—and what is ordinary and recognised in practice must necessarily differ in town and country—and provided that what is done is done with reasonable prudence and skill.

Accordingly, if I am right, the action of the Corporation, as owners of the children's park, in culverting the burn and levelling the ground is just as ordinary and recognised in practice *in urbe* as anything done by other members of the community, and particularly by the Glasgow and South-Western Railway Company, and there is no suggestion that it was negligently performed. I cannot therefore hold the Corporation in their capacity as Corporation responsible for any such result as is alleged to have followed here. As road and drainage authority they are not sued, and, as I have said before, at this I do not wonder, for their action as road and drainage authority does not appear to be capable of being impugned.

But this is another thing when one comes to look at their responsibility for their culvert and pond. While in the circumstances of the district I could not hold these operations as extraordinary, I cannot think that they were executed with reasonable prudence and skill. The consequence was overflow, which found relief by the Inverkip Road, and intensified the flood, which passing down it filled Leslie's yard and carried his garage structure into the burn. No doubt the Bow Road and other flood water had made the Inverkip Road its channel at an earlier period of the flood, and had commenced the flooding of Leslie's yard and imperilled his garage, and it is difficult to say what the ultimate effect of these natural causes would have been. But as I am led to conclude that the overflow from the pond began about 11·30 o'clock, up to which time the garage had stood, and that after its accession to the Inverkip Road flood there was marked increase in the water in Leslie's yard, and consequent pressure on the garage structure, the fall of which is dated between 11·50 and 12 o'clock—though I do not regard the conclusion with any confidence—I think that it is open to come to the result, not, as the Lord Ordinary has done, that it is proved that the overflow from the pond was the cause and sole cause, but that it was the *causa sine qua non* of the fall of the garage and of the retaining wall of the burn. If so, then there can be no doubt that the destruction of the Glasgow and South-Western wall was the result, not of gradual accumulating pressure, but of the violent impact of the flood which was caused by the collapse of Leslie's garage, and so an immediate and not a remote consequence of the increase of flooding by the overflow from the pond. While therefore I have considerable hesitation on this branch of the case I am not prepared to differ from the Lord Ordinary.

I must apologise for having so long detained your Lordships, but where a case has been considered of such importance as to occupy the First Division of the Court twelve working days in hearing counsel, I have found it impossible otherwise to give adequate consideration of the evidence and to do justice to the very able argument which was submitted and has now been concentrated in considered minutes of debate.

LORD MACKENZIE—*Caledonian Railway Case*—The alterations made by the defenders in the natural channel of the West Burn in the year 1908 were the formation of the paddling pond, the laying of the culvert through the Lady Alice Park, and the consequent change in the levels of the ground below the pond. They constituted an *opus manufactum in alveo* of a serious character. Not only did the work at the paddling pond have the effect of damming up the water from the West Burn and throwing the flood water on to and down the Inverkip Road, but the change in the relative level of the road and the old channel below the pond prevented the water of the West Burn, which overflowed on to the road above the pond, finding its way back to the old natural channel as it had previously done, and consequently it also in time of flood increased the flow down the Inverkip Road. These results the evidence shows are directly referable to the defenders' operations. The question of difficulty in this case is whether the damage of which the pursuers complain was caused or materially contributed to by operations for which the defenders are responsible.

The defenders' position in law may be summarised thus—Where a local authority acts within the scope of its statutory powers and duty it is subject to the obligation of taking a high degree of care, but if a flood

occurs and damage is done in consequence negligence must be proved, and the measure of that negligence is whether there has been a failure to provide for such floods as may reasonably be anticipated.

The Greenock statutes do not empower the Corporation specifically to form the paddling pond, and the defenders are therefore not within the class of cases where it has been held that negligence must be proved in the construction of statutory works before the undertakers can be made responsible in damage. The Corporation of Greenock are in the same position as a private owner of land as regards the construction of the paddling pond. The principle upon which a private owner is liable in reparation for the consequences of an *opus manufactum in alveo* of a running stream is not negligence. If damage results from the construction of such a work the owner is *prima facie* liable. The right of action does not depend on the pursuer being a riparian proprietor. The question of the extent to which exceptions to this rule have been recognised will be considered later.

The rule has been laid down in a series of Scotch cases—*Kerr* v. *Earl of Orkney*, 20 D. 290; *Chalmers* v. *Dixon*, 3 R. 461, 13 S.L.R. 299; and *Tennent* v. *Earl of Glasgow*, 2 Macph. (H.L.) 22. In the *Earl of Orkney's* case the following passage occurs in the opinion of the Lord Justice-Clerk — "If a person chooses upon a stream to make a great operation for collecting and damming up the water for whatever purpose, he is bound, as the necessary condition of such an operation, to accomplish his object in such a way as to protect all persons lower down the stream from all danger. He must secure them against danger. It is not sufficient that he took all the pains which were thought at the time necessary and sufficient. They were exposed to no danger before the operation. He creates the danger, and he must secure them against danger, so as to make them as safe notwithstanding his dam as they were before."

The same principle is recognised in the English cases of *Rylands* v. *Fletcher*, *Nichols* v. *Marsland*, and *Rickards* v. *Lothian*. See also *Eastern Telegraph Company* v. *Cape Town Tramways Companies, Limited*, [1902] A.C. 381.

These cases all recognise that there may be lawful acts *in suo* for the consequences of which the owner may be responsible. Nor is there either in the Scotch or the English cases a limitation by decision of the class of facts to which the principles of *Kerr* v. *Earl of Orkney* and *Rylands* v. *Fletcher* will apply. These cases deal with water, but the same principle underlies such cases as *Dalton* v. *Angus*, 6 A.C. 740, 50 L.J., Q.B. 689, and *Chalmers* v. *Dixon*. *Dalton* v. *Angus* dealt with the right of support. The ground of action there was breach of duty, but the breach was not taking out the coal, but taking it out in such a manner as to bring down the neighbour's surface. *Chalmers* v. *Dixon* was the case of a bing. The defenders had accumulated on their premises a bing which emitted noxious vapours, and caused damage for which they were held liable without proof of specific fault merely because the *opus manufactum* they had formed did damage. The principle applied in the Scotch and English cases is the same —*sic utere tuo ut alienum non lædas*. The Scotch decisions which deal with the case of an *opus manufactum in alveo* are illustrations of the application of that principle. If a proprietor interferes with the natural course of a stream in its natural bed he does so at his own peril.

The next question is whether there is an exception to this rule in the case of *damnum fatale* or *vis major*, the latter of which is the more appropriate phrase. In *Pirie & Sons* v. *Magistrates of Aberdeen*, 9 Macph. 412, 8 S.L.R. 302, Lord Benholme recognised the exception of what Lord Cockburn had termed in *Samuel* v. *Edinburgh and Glasgow Railway Company*, 13 D. 312, "nature's miracle," "such an occurrence as a waterspout." In *Tennent* v. *Earl of Glasgow*, 1 Macph. 133, *affd.* 2 Macph. (H.L.) p. 22, in which *Kerr* v. *Earl of Orkney* was approved, the defender was held not liable, because, as the Lord President puts it, the flood "appears in fact to have been somewhat of the nature of a waterspout," and therefore came within the explanation of *damnum fatale* given by the Lord Chancellor — 2 Macph. (H.L.) at p. 26—"What has occurred is one of those things which do not involve any legal liability—what are denominated in the law of Scotland *damnum fatale* occurrences—circumstances which no human foresight can provide against, and of which human prudence is not bound to recognise the possibility, and which when they do occur, therefore, are calamities that do not involve the obligation of paying for the consequences that may result from them." At the time of the decision in *Rylands* v. *Fletcher* the question whether *vis major* formed an exception to the general rule was undecided in England. Blackburn, J., said that "perhaps" it did form an exception. This question was decided in *Nichols* v. *Marsland*, 1875 L.R., 10 Ex. 255, *affd.* 2 Ex. D. 1, where it was held that as the jury had returned a verdict which was in substance a finding that the escape of the water was caused by the act of God or *vis major*, the defendant was not liable in damages. This case was strongly founded on by the defenders here, but the decision depended on the verdict of the jury. Although the defenders may with reason found upon what was done in that case, I do not read the opinions expressed as conflicting with the general rule as above stated. As put by Bramwell, B., L.R. 10 Ex. at p. 259, the test of whether an event is *vis major* is whether it was practically impossible to resist it. In delivering the judgment of the Court of Exchequer Chamber (Cockburn, C.J., James and Mellish, L.JJ., and Bagallay, J.A.), Mellish, L.J. pointed out that the wrongful act was not the making or keeping the reservoir but the allowing or causing the water to escape—2 Ex. Div. at p. 5. "A defendant cannot, in our opinion, be properly said to have caused or allowed the water to escape if the act of God or the Queen's enemies was the real cause of its

escaping without any fault on the part of the defendant. If a reservoir was destroyed by an earthquake, or the Queen's enemies destroyed it in conducting some warlike operation, it would be contrary to all reason and justice to hold the owner of the reservoir liable for any damage that might be done by the escape of the water." In the case of *Rickards* v. *Lothian*, 1913 A.C. 263, Lord Moulton in delivering the judgment of the Privy Council refers to *Nichols* v. *Marsland*, and says that what was there said as regards *vis major* applies equally to the case where the escape of water is due to the malicious act of a third person. The argument for the pursuers in the present case was that if it be sound to say that the proprietor of land interferes with nature at his peril, then he is not entitled to be freed of liability because nature has been too strong for him, for the peril was just the one he took on his shoulders. I am unable to assent to the argument stated so broadly. I think excessive rainfall may amount to *vis major* if, as the Lord President puts it in *Tennent's* case, it is of the nature of a waterspout, but it is not *vis major* unless it was practically impossible to resist it.

The next question is whether the rainfall of 1·87 in. in 1 hour 20 minutes, equivalent to 1·4 in an hour, can be regarded as *vis major* or *damnum fatale*. Upon this point I entirely agree with the conclusion reached by the Lord Ordinary, and refer to the summary of the evidence contained in his opinion. I may observe with reference to the argument addressed to us that a prudent engineer was bound only to have regard to the records of rainfall in Greenock and locality, that I consider this too narrow a view of his duty. The records of rainfall throughout the country show that the rain on the day in question, though intense, could not be regarded as anything of the nature of a waterspout or cloudburst, and therefore was not of the nature of *damnum fatale* or *vis major*.

If this view of the law is correct the only defence open to the Corporation is that it was not the flood water from the West Burn that brought down the retaining wall. This is their main defence, and the feature of the case which to my mind causes most difficulty. There are difficulties in the way of either pursuers or defenders. The defenders say that the flood water from the pond did not reach the retaining wall in time to do the damage, and that there was flooding from other quarters sufficient to account for the damage even if there had been no flooding of the pond. . . . .

The sequence of events in point of time which I hold proved is (1) that the pond overflowed at or very shortly after 11·15; (2) that the Glasgow and South-Western Railway wall collapsed at or shortly after 11·35; and (3), which is undoubted, that the Caledonian Railway wall fell at 12·10. Therefore the sequence of events in point of time fits in with the case for the pursuers. The pond water had time to arrive and do the damage. It is inconceivable to my mind that the pond did not overflow until 12 or later. The evidence on which the defenders rely is that the rain was so unprecedented that in a very short time the drains were overpowered and the streets round about the Caledonian West Station flooded. It is proved in my opinion that the West Burn below the Lady Alice Park was at no time between 10·50 and 12·10 unusually full. It necessarily follows that the water, which would if allowed to follow its natural course have caused a violent flood in the old course of the West Burn, had been diverted down the Inverkip Road shortly after the heavy rain began.

The next question is whether it was the pond water that did the damage. This must necessarily, in a case such as the present, depend upon inference. . . . It was contended that the accumulation of water from sources other than the overflow from the pond would have caused the wall to come down. The *onus* here is upon the pursuers. They must prove that the water coming down the Inverkip Road for which defenders are responsible was a *sine qua non*. What weighs with me chiefly in holding that the pursuers have proved their case is that the fall of the wall synchronises with the arrival of the pond water. There had been ponding up in the back ground of the Roxburgh Street houses for a long time before the wall fell. This water, according to the theory of both sides, was seeping into the ground, overcharging it with moisture. Then there was poured into this already overcharged area the flood water from the paddling pond, which made the pressure more than the wall could stand. . .

If the opinion already expressed is correct that the rainfall did not amount to *damnum fatale* or *vis major*, then it was the *opus manufactum* of the defenders that caused the West Burn to contribute the bulk of the water that flooded the Inverkip Road. Before the defenders' operations in 1908 there had not been flooding of the West Burn on to the Inverkip Road. . . . .

A good deal was said in the course of the argument about the construction of the culvert through the Lady Alice Park. There was no adverse criticism of its size. If the water was poured from the pond into the culvert with the greatest ease it would take 740 cubic feet per second. All the civil engineers are agreed it was not necessary that the bore should be larger. But after recognising that the culvert should be of the size it was made, the town's engineer constricted its capacity at the entrance, so that only one-half comes into play. . . . .

The only point of attack upon the defenders' works at the paddling pond so far as negligence is concerned is, that there would be flooding at the concrete dam when 226 cubic feet per second of water was passing down. As already stated, it is not necessary for the pursuers to prove negligence. The Lord Ordinary holds that the pursuers have succeeded in proving that the defenders were guilty of negligence. I also reach the conclusion that the defenders were guilty of negligence, arriving at this result in a somewhat different manner. . . . .

I am of opinion that the defenders made

insufficient provision at the concrete dam to prevent flooding.

The pursuers are entitled to make a further complaint, which is this. The effect of the defenders' operations is that they buried the channel of the burn, with the result that whenever the West Burn overflowed at any point higher up the flood water was bound to follow the line of least resistance and travel down the Inverkip Road. The evidence shows that prior to the culverting through Lady Alice Park, the West Burn water which had overflowed higher up would have returned to its old channel. Now it cannot. This is a valid ground for holding the defenders responsible for damage done by this water. It supplies an answer to the defence put forward that the aperture at the concrete dam was no greater obstruction than the bridges higher up where Mrs Strain saw the water overflowing. The water diverted on to the road at these bridges would have found its way back into the natural channel, So also would the water which had overflowed from the West Burn at Gateside. It is necessary however, in my opinion, to distinguish between West Burn water and other water, such as that which came down the Bow Road and Macaulay's fields. I do not think the defenders are liable for this in consequence of the *opus manufactum* they erected. No authority was cited which would warrant a claim of this nature. Nor do I regard the Caledonian Railway as bringing a claim against the defenders because they neglected their duty as road authority. The defenders are liable for West Burn water because by an *opus manufactum* they have affected its flow in a defined *alveus*. But there is no law which would make the defenders liable for the consequences of what one may term vagrant water which found its way down the Inverkip Road. The effect of the pursuers' argument on this head would be that the defenders would have been equally liable if they had built a row of houses fronting Inverkip Road. In estimating therefore the quantity of water for which the defenders are responsible I take into account only that which overflowed from the West Burn.

This is what, in my opinion, materially contributed to the damage done to the pursuers. I therefore think the interlocutor of the Lord Ordinary should be affirmed.

Glasgow and South-Western Railway Case.—The general features of this case are the same as those in the action at the instance of the Caledonian Railway. The special circumstances make the case for the pursuers stronger. It is not complicated as the Caledonian case was with the Roxburgh Street water, and the premises through which the water came are in the direct line of the flow of the water. Nor in my opinion can the defenders successfully maintain that the water did not arrive in time to do this damage. The pursuers' case is that the flood water which came down Inverkip Road from the West Burn broke into the firewood factory and garage and did the damage complained of to the Glasgow and South-Western Railway wall. The defenders have to admit that the Inverkip Road water broke into the yard, but say that the wall fell before the flood water did damage. The engineering evidence shows that the dip in the road opposite the garage is sufficient to account for the water accumulating and breaking through at this point. If the defenders fail to show that the wall fell before the garage this means that the pursuers win their case. . . . .

The conclusion I come to is, that the damage done to the Glasgow and South-Western Railway wall was materially contributed to by the West Burn water which came down the Inverkip Road in consequence of the operations of the defenders. I therefore think the interlocutor of the Lord Ordinary should be affirmed.

LORD SKERRINGTON—I am of opinion that the Lord Ordinary has come to a right conclusion in both actions.

The first point which we have to determine is whether the reclaimers' counsel in their able attack on the Lord Ordinary's judgments in these two actions have shown that he erred when he pronounced a verdict in favour of the pursuers to the effect that the occurrence of the injuries to their properties of which they severally complain—viz., in the case of the Glasgow and South-Western Railway Company, the destruction of their fence wall and the consequent flooding of their railway line by the West Burn, and in the case of the Caledonian Railway Company, the destruction of their retaining wall at the west station—was in each case contributed to in a material degree by water which overflowed from the West Burn on to the Inverkip Road in consequence of the defenders having interfered with the natural flow of that burn at the time when they constructed their paddling pond. I so state the question because on the day with which we are concerned—5th August 1912—the flooding of streets, roads, and sewers in and near the burgh of Greenock by surface water, due to the intense and unusual rainfall which began about 10·50 a.m. and lasted for one hour and twenty minutes, was so considerable and so widespread that one cannot avoid the conclusion that such surface water was a factor in bringing about the occurrence of the injuries complained of by the pursuers. Assuming, however, that it is a just inference from the proved facts that an overflow from the West Burn, for which the defenders were in law responsible, also contributed in a material degree to the occurrence of these injuries, the defenders would be liable for the whole consequences seeing that it is impossible to apportion any part of the damage as having been caused exclusively by water for which the defenders were not responsible. . . . .

On a careful consideration of the whole evidence I hold it proved that the water which overflowed on to the Inverkip Road from the West Burn at and near the paddling pond was a material factor in bringing about the destruction of the garage, and consequently of the Glasgow and South-Western Railway Company's fence wall. . . .

I hold it proved that the overflow from

the West Burn reached the West Station in time to assist in destroying the retaining wall. But the defenders' counsel argued that, even if that were so, the overflow from the West Burn did not in fact contribute to the injury, because before its arrival the whole mischief had already been done by surface water which had poured in torrents down various streets all converging upon the natural hollow where the West Station of the Caledonian Railway is situated. According to this argument, although the retaining wall did not crack and move forward until 12·10 p.m., it ought to be found as a fair inference from the evidence that both the wall and its foundations had been irretrievably ruined long before that time by surface water which had found its way into and flooded the premises in Inverkip Street and Roxburgh Street, abutting on the back of the retaining wall. . . . If I am right in holding that the water which overflowed on to the Inverkip Road from the West Burn at and near the paddling pond had been pouring into the hollow round the West Station for more than half-an-hour before the retaining wall actually gave way, I think that the defenders must do more than suggest a doubt as to whether this water produced its natural effect in assisting to undermine and displace the retaining wall either directly or by pushing forward surface water which otherwise would have remained innocuously in the street. In this connection it should be noticed that the water which flooded the premises in Roxburgh Street situated at the back of the retaining wall came from the west, that is, from the direction of the Inverkip Road.

Assuming that the pursuers have sufficiently proved that the occurrence of the injuries to their properties of which they severally complain was materially contributed to by water which the defenders caused to escape from the West Burn in consequence of their having interfered with the natural channel and flow of that stream, I agree with the Lord Ordinary in holding it proved that the defenders failed to make due provision for the amount of water which might reasonably have been expected to come down the West Burn in time of flood. . . .

For the foregoing reasons, I do not require to consider whether the defenders would have escaped liability if it had appeared that they had used all reasonable forethought and precaution in order to secure that the artificial channel of the West Burn should be as efficient as the natural channel which they abolished; nor is it necessary to consider whether the unusual and intense rainfall on the day in question could be regarded as a *damnum fatale*.

While I agree in the result at which the Lord Ordinary has arrived, and also substantially in his reasons, I think it right to point out that in his note in the Caledonian Railway Company's case he appears in one passage to refer with approval to an alternative ground of liability presented by the pursuers, both in their written pleadings and in their oral argument, to the effect that the defenders incurred some special responsibility towards adjoining landowners, and also the public generally, when they so altered the natural features of their property adjoining the Inverkip Road as to prevent surface water which flowed down that road from finding its way into the West Burn at some point or points between the site of the paddling pond and the firewood factory next door to Leslie's garage. The liability (if any) incurred by the defenders on this head would have been the same if they had refrained from interfering with the natural channel of the burn, and had contented themselves with building on their own property a wall or houses which prevented surface water in times of unusually heavy rain from finding its way by undefined channels across their property from the Inverkip Road into the West Burn. I agree with the argument of the defenders' counsel to the effect that *prima facie* the duty of providing for the removal of surface water from a public road is a matter for the road authority, which is armed with statutory powers enabling it to make due provision for the drainage of its roads, and that an adjoining landowner does not in the ordinary and general case lie under any duty to provide for the passage of surface water across his property in undefined channels from a public road to a burn at a lower level. No authority was cited by the pursuers' counsel in support of this alternative ground of liability. While I assume that in special circumstances a landowner might incur liability for obstructing the passage of surface water across his property from an adjoining highway, no relevant case on this head has, in my opinion, been averred, and no such cause of action has been established by evidence. It was expressly stated by the pursuers' counsel that the defenders were sued solely in respect of breaches of duty alleged to have been committed by them in their character as landowners, and not for neglect of duty committed in their capacity as the authority in charge of the Inverkip Road. What I have said as to surface water applies equally to water which flooded on to the Inverkip Road from the West Burn, not in consequence of any operations by the defenders, but at a considerable distance above the paddling pond.

LORD JUSTICE-CLERK—Appreciating to the full, as I hope I do, the greater advantages which the Lord Ordinary had in dealing with these difficult cases than I have had, and the very able and careful way in which he has discussed them, I regret that I am not able to accept the results at which he has arrived.

The pursuers are claiming damages from the defenders, and they must prove their case not only as to the amount of damage but also as to the causes of that damage, and particularly as to whether these causes were such as the defenders are in law responsible for. On the other hand I quite realise that the *onus* may shift, and I think what Lord Coleridge, C.J., said in *Dixon* (7 Q.B.D. 418, at page 422) applies, and I adopt as

sound law the statement by Professor Rankine in the fourth edition of his "Law of Landownership" at page 376.

I do not think the cases of *Kerr* v. *The Earl of Orkney* and *Fletcher* v. *Rylands* and the legal doctrines expounded in these case are applicable (at least without important qualifications) to the state of facts with which we have now to deal. In both of these cases a great accumulation of water was deliberately made by the defenders, and that water was allowed to escape and damage the pursuers' property. It was held in these cases that the defenders having for their own purposes by artificial works constructed for the very purpose accumulated water to such an extent that if allowed to escape it must cause damage, were liable for the damage caused by such escape. There was no question as to how the accumulation of the water had been brought about, nor that it was the escape of the water so purposely accumulated and that alone which caused the damage.

In the present cases there was no such accumulation. What is complained of is not a dangerous accumulation, but inadequate provision without accumulation to prevent a dangerous overflow. Such overflow was not only not intentionally caused by the defenders, but was brought about contrary to what they intended, and was what their operations were truly designed to prevent.

The immediate cause of the mischief in the present cases was a very heavy concentrated and extensive rainfall on 5th August 1912, beginning shortly before eleven o'clock on that date, but preceded by a considerable rainfall on the previous day and an earlier fall on the morning of the 5th. The fall on 5th August was locally spoken of as a "cloudburst." It is in my opinion established that the effect was that on 5th August the West Burn had overflowed its banks long before the Lady Alice Park was reached, and that great quantities of water were discharged on to the Inverkip Road by such overflow, and from other contributory sources, including Bow Road and the Cemetery, quite independent of any water coming from the Lady Alice Park, and also that there were heavy contributions of flood water from the north, south, and west of the Caledonian Station in no way due to the West Burn or for which the defenders can be held responsible.

I think it is established that this rainfall on 5th August was unprecedented in duration, intensity, and extent of area, and therefore could not reasonably have been anticipated. In my opinion in law such a rainfall was not a matter which the defenders in carrying out their operations at the Lady Alice Park were bound to have provided against—*Pirie* v. *Magistrates of Aberdeen*, 9 Macph. 412, 8 S.L.R. 302, especially Lord Justice-Clerk; *Nichols* v. *Marsland*, 2 Ex. Div. 1; *Rickards* v. *Lothian*, 1913 A.C. 263; *Fletcher* v. *Smith*, L.R., E. & I. App. 781; *Nitro-Phosphate Company*, 9 Ch. D. 503.

Further, I think it is established that the flood water, even if it had not been supplemented by any overflow due to the defenders' works at the pond, was so great in volume that it would have caused the damage at both stations.

While it is proved that there was an overflow from the pond on to the Inverkip Road, there is, in my opinion, no sufficient proof as to the volume of this overflow, or as to whether, so far as the resulting damage is concerned, it materially contributed to the flood water going down the Inverkip Road. I do not think these matters can be presumed against the defenders so as to lay on them the *onus* of establishing the contrary. The case of the *Nitro-Phosphate Company*, *supra*, was different. There the initial and chief mischief was due to the defenders' failure to raise their wall high enough. This was held to preclude them from pleading the "act of God," and required them to prove that more damage had been done than was due to their clear breach of their statutory duty, and the extent of that extra damage. In the present case I am of opinion that the primary cause of the damage was the unprecedented rainfall, and that if the damage due to that cause was augmented by any extra flood for which the defenders are responsible, it lies on the pursuers (if that be possible) to prove that, and what the amount of that extra damage was. The proof is now concluded, and in my opinion the pursuers have not made good their cases in these respects.

I think also, as regards the Caledonian case, that while the cause of the damage there was hydrostatic pressure from the back ground of the Roxburgh Street tenements, the evidence shows that the Inverkip Road water, to which alone the operations at and near the pond contributed, got into the station from Inverkip Street, and did not reach said back ground, or at any rate that the opposite is not proved, and that it fell to the pursuers to prove this if they could. On the other hand it was, I think, proved that there was a sufficient flooding from the streets from the south and west having direct access to said back ground, independent of the flooding from Inverkip Road, to cause the hydrostatic pressure which was brought to bear on the Caledonian wall which fell and the consequent mischief.

On the whole I am of opinion that in neither of the cases have the pursuers made good their ground of action.

LORD DUNDAS—A study of these important and voluminous cases, with the printed minutes of debate, has led me to the conclusion that the interlocutors reclaimed against are right and ought to be adhered to. As regards the case at the instance of the Caledonian Railway Company, I may say that the chief difficulty seems to me to arise in connection with the question of *onus probandi*. In my judgment it is sufficiently established that the overflow from the paddling pond arrived early enough and in large enough quantity to contribute materially to the collapse of the pursuers' wall. I do not agree with those of your

Lordships who hold that it was for the pursuers to prove that that overflow was an essential factor in the disaster. The *onus* was, in my judgment, upon the defenders to show that the wall would have come down though there had been no overflow from the paddling pond, and this they have not been able to do.

LORD SALVESEN—Numerous questions, both of law and fact, are discussed in the very full and able minutes of debate which have been submitted to the consulted Judges. I shall not attempt to state at length the reasons on which I have come to be of opinion that the Lord Ordinary's judgment should be sustained, but shall merely formulate as briefly as I can the law which I consider applicable to this case and the conclusion that I have reached in regard to the essential facts.

The decision which I consider most in point is that which was pronounced in the case of *Kerr* v. *The Earl of Orkney*, 20 D. 298. I accept the law as laid down by Lord Justice-Clerk Hope at p. 302. The decision has never been adversely criticised, but was approved in *Downie* v. *The Earl of Glasgow*, 2 Macph. (H.L.) 22. It is true that in *Kerr's* case what caused the damage was the bursting of a dam, whereas here there was only an overflow from the pond which the defenders had constructed. But if the cause of the overflow was, as I hold it proved, due to the defenders' operations on the stream, but for which it would have been adequate to carry off all the water that naturally flowed into it, the principle of the decision appears to me to apply. If an upper riparian proprietor by his operations on the bed of a stream causes it to overflow its banks, and so to injure structures that would otherwise have escaped damage, I think he comes within the principle of the decision. To use the words of Lord Justice-Clerk Hope, it is the necessary condition of such an operation that he should accomplish his object in such a way as to protect all persons lower down the stream from damage. "He must secure them against damage. It is not sufficient that he take all the means which were thought at the time necessary and sufficient. They were exposed to no danger before the operation. He creates the danger and he must secure them against damage, so as to make them as safe, notwithstanding his dam, as they were before." The case of *Potter*, 3 Macph. 83, affords an illustration of the application of this doctrine to circumstances not unlike those out of which this action has arisen.

It does not follow that the defenders would be liable if what caused the overflow was a *damnum fatale*—as, for instance, if the works had been destroyed by an earthquake and water had in consequence been released; but I am of opinion that even such an extraordinary fall of rain as took place in Greenock on the occasion in question did not amount to a *damnum fatale*. Again, if it could have been shown that the West Burn in its natural state would, under the conditions which prevailed, have overflowed its banks and done the whole damage complained of, there would, I apprehend, have been no responsibility; but if the overflow was caused by the operations made in the bed of the burn, then I do not see how, according to the decision in *Kerr's* case, the fact that such an intense fall had never before been recorded in the district has any relevancy. After all, the evidence only amounts to this, that the records kept at Prospect-hill since 1882 disclose no rainfall which equalled, as regards intensity and duration, that of 5th August 1912. But even if such a rainfall happened only once in a hundred years, if the stream in its natural state would have been sufficient to carry it off without damage to owners of property situated below the spot where the defenders' operations had been made, then it was these operations which caused the damage. I cannot think that the question whether a rainfall is so heavy as to constitute a *damnum fatale* can depend upon the non-occurrence of an equally heavy rainfall within a particular district during a limited period of time (even if the records could be absolutely relied upon), especially when it appears that during the forty-five years before 1912 there were no less than eleven occasions in Scotland where a more intense fall than the one in question was recorded.

The main difficulty in the case arises on a question of fact. The defenders allege that the Railway Company's wall collapsed before the water which overflowed at the paddling pond reached it. I doubt even if this had been made out whether the defenders could have escaped responsibility, for on that assumption their gratings and culverts for carrying off surface water must have been deficient. *Prima facie* it is the duty of a corporation so to drain the streets over which they have control that the houses shall not be flooded during periods of intense rainfall. The case of *Hanley*, 1913 S.C. (H.L.) 27, 50 S.L.R. 521, seems to support this proposition, and I do not think it matters that the defenders have not been sued expressly in their capacity as road authority. They cannot deny that as a corporation they are responsible for the proper drainage of the streets along which the water flowed, which is said to have been sufficient to have caused all the damage complained of. But it is not necessary to decide this matter, as I agree with the Lord Ordinary in holding that the wall did not collapse until some time after the overflow at the paddling pond had taken place. I hold that the release of so large a body of water must have materially contributed to the collapse of the retaining wall, and I do not think that the *onus* was upon the pursuers to prove that the presence of this water behind the wall was a *sine qua non* of its collapse. In my opinion in the proved circumstances of the case the *onus* was upon the defenders to show that the wall would have collapsed although there had been no overflow at the paddling pond, and this *onus* they have failed to discharge.

For these reasons I reach the same conclusion as the Lord Ordinary, although I am not sure that I should have been prepared to have gone the length of holding that if

liability had depended on negligence on the part of the defenders such negligence has been established. In other respects I am content to accept his conclusions upon the evidence, and I do not think it necessary to add anything with regard to the case at the instance of the Glasgow and South-Western Railway, which presents a simpler issue of fact.

LORD GUTHRIE — I concur in Lord Salvesen's opinion.

LORD CULLEN—*Caledonian Railway Company's Case.* — I think that the defenders when they interfered with the natural conditions of the West Burn by interposing in its course the *opus manufactum* of the paddling pond charged themselves with an obligation to indemnify against said interference their neighbours whose property was affectable by it, except in so far as damage to the latter might arise either from the uncontrollable acts of third parties or from the occurrence of operations of nature of the kind so remote from probability that in the conduct of human affairs people leave them out of account as not requiring to be provided against.

While the rainfall during eighty minutes on 5th August 1912 was severe and exceptional, it was not in point of kind a phenomenon alien to Greenock (as a violent earthquake, *e.g.*, would have been) but an accentuation of one of the commonest operations of nature, and, indeed, of the very operation which the defenders had to provide against in making their *opus manufactum*. I do not affirm the proposition that rainfall in this country can never amount to an act of God or *damnum fatale*. The rainfall of 5th August might conceivably have continued with unintermitted intensity for weeks. Viewing the question as one of degree, I am not prepared to hold that the rainfall which actually took place on the occasion in question rose to the level of a *damnum fatale*.

It is, I think, clear that the overflow from the paddling pond owed its origin to the fact that the entrance to the pond at the concrete bridge was too constricted to freely admit the flooded waters of the burn. And it is, I think, proved that the overflow was accentuated by the blocking effect of debris caught by the paddling pond works.

I am unable to accept the Lord Ordinary's hour of 11·15, taken from the evidence of the witness Inglis, for the beginning of the overflow from the pond, because I think Inglis is loose and unreliable when he speaks of hours. But I am satisfied by the whole evidence bearing on this point that the paddling pond overflowed at or very shortly after 11·30. This difference in time does seem to me to alter materially the conditions of the problem. . . . . .

I agree in thinking that the conditions of the problem make the pursuers' case difficult, and that there is room for the *onus* to shift. But on a repeated perusal of the evidence, I am unable to say that it raises in my mind the presumption in favour of the pursuers which they call on the defenders to rebut. The considerations which influence me I may, perhaps with some repetition, state as follows:—

(1) The rainfall of 5th August was so severe as to cause great flooding from surface water in many parts of Greenock, and in particular in the immediate area of the West Station, quite apart from the overflow from the paddling pond; (2) the flooding from surface water affected the immediate area of the West Station very speedily and, relatively, long before the paddling pond overflowed; (3) this prior and independent flooding produced an accumulation of water in the back ground behind the pursuers' wall to a depth approximating to 2 feet, capable of seriously assailing the wall by way of hydrostatic pressure at the back of it; (4) as the rainfall continued with unabated intensity to 12·10 p.m., the sources which created this prior and independent condition of flooding from surface water and of accumulation of water behind the pursuers' wall must have continued capable of maintaining it up to that hour; (5) it is not proved that the accumulation of water so produced in the back ground behind the pursuer's wall was increased after the paddling pond overflowed; (6) the evidence leaves unascertained and vague what amount of water from the overflow of the paddling pond reached the immediate area of the West Station prior to the downfall of the pursuers' wall; and (7) the evidence leaves it also unascertained, and a matter of mere speculation, whether such portion of said overflow water as may have reached the immediate area of the West Station exerted any material influence, in co-operation with the prior and independent flooding from surface water, in either increasing or maintaining the hydrostatic pressure at the back of the wall which brought it down.

Following these views, I am unable to agree with the Lord Ordinary in this case, and am of opinion that his interlocutor should be recalled and the defenders assoilzied.

Glasgow and South-Western Railway Company's Case.—In this case there is not the same complication which attends the case for the Caledonian Company arising from the existence of prior and independent flooding caused by surface water. The garage was brought down by the impact of water flowing down the Inverkip Road. I accept the Lord Ordinary's conclusion that the garage fell before the wall. I do so because the Lord Ordinary gives credence to the evidence of the witnesses Leslie and Shearer, and because Aldwinckle, who seems to me a reliable witness, corroborates them, so that the weight of the evidence is, I think, in favour of the Railway Company.

The hour when the garage fell is not accurately ascertained, but I think that it fell shortly before twelve o'clock.

What brought it down was the flow of water down the Inverkip Road. The overflow from the paddling pond was then in full force. There was also, it is true, the great flow of surface water from the Bow Road and the flow of surface water from the upper reaches of the Inverkip Road. But the overflow from the paddling pond

must have made a large contribution to the general flow down the Inverkip Road which invaded the premises and overthrew the garage. I therefore think that the pursuers are entitled to a presumption that the water from the pond formed a material factor in the force of water which overthrew the garage and, by consequence, overthrew the pursuers' wall.

I accordingly concur in the Lord Ordinary's conclusion in this case.

LORD DEWAR—I adhere to the decision I pronounced in the Outer House in both cases.

LORD ORMIDALE—I have had an opportunity of reading the opinions of Lord Cullen in these cases. I concur in them and cannot usefully add anything to them.

LORD HUNTER—I do not think that the legal measure of the defenders' liability is to be found either in the dictum of the Lord Justice-Clerk (Hope) in the case of *Kerr* v. *Earl of Orkney*, 1857, 20 D. 298, or in the principle there given effect to and more fully developed in *Fletcher* v. *Rylands*, 1866 L.R., 1 Ex. 265, 3 E. and I. App. 330.

In the former of these cases a landed proprietor had erected a dam across a stream and thereby collected and retained upon his land a large quantity of water. During a heavy fall of rain the dam burst its banks; the collected water overflowed, and the pursuer's mill, which was situated further down the stream, was injured. The defender was found liable, the Lord Justice-Clerk stating the general principle upon which the view of the Court was founded in these terms—"If a person chooses upon a stream to make a great operation for collecting and damming up the water for whatever purpose, he is bound, as the necessary condition of such an operation, to accomplish his object in such a way as to protect all persons lower down the stream from all danger. He must secure them against danger. It is not sufficient that he took all the pains which were thought at the time necessary and sufficient. They were exposed to no danger before the operation. He creates the danger, and he must secure them against danger, so as to make them as safe, notwithstanding his dam, as they were before. It is no defence in such a case to allege the dam would have stood against all ordinary rains—it gave way in an extraordinary and unprecedented fall of rain which could not be expected. The dam must be made perfect against all extraordinary falls of rain, else the protection is not afforded against the operation which the party must accomplish. An extraordinary fall of rain is a matter which in our climate cannot be called a *damnum fatale*, supposing the doctrine so denoted by that term to be applicable, generally speaking, to a dam for collecting water." The law thus laid down was approved by the Lord Chancellor (Lord Westbury) and Lord Chelmsford in the House of Lords in *Tennent* v. *Earl of Glasgow*, 1864, 2 Macph. (H.L.) 22.

In *Fletcher* v. *Rylands* the defendants had constructed a reservoir on their land for the purpose of collecting water to work a mill. Under their land there were disused workings of a coal mine, the existence of which was unknown to the parties. On the reservoir being filled the water found its way through some old shafts to the underground workings and escaping through them flooded the plaintiffs' colliery. The defendants were held liable although no fault or negligence was imputable to them. Mr Justice Blackburn, in delivering the unanimous judgment of the Court of Exchequer Chamber said, *inter alia*—"We think that the true rule of law is, that the person who for his own purposes brings on his lands and collects and keeps there anything likely to do mischief if it escapes must keep it in at his peril, and if he does not do so is *prima facie* answerable for all the damage which is the natural consequence of its escape. He can excuse himself by showing that the escape was owing to the plaintiff's default, or perhaps that the escape was the consequence of *vis major* or the act of God, but as nothing of this sort exists here it is unnecessary to inquire what excuse would be sufficient. The general rule, as above stated, seems on principle just." This statement was accepted in the House of Lords and has very frequently been referred to and founded on in subsequent cases. Lord Cranworth, who approved of Mr Justice Blackburn's statement of the rule of law governing the case, said—"If a person brings or accumulates on his land anything which, if it should escape, may cause damage to his neighbour he does so at his peril;" and he added—"If it does escape and cause damage he is responsible, however careful he may have been, and whatever precautions he may have taken to prevent the damage."

So stated, this principle or rule of law where it applies imposes an almost absolute obligation upon an owner of property. Subject to certain qualifications to which I shall briefly refer he guarantees others against risk of damage arising from his operations. There are many cases both in England and Scotland where this rule of law has been accepted and applied, and numerous illustrations of its application are to be found in the cases collected by the parties in the minutes which have been prepared and put before us.

In *Nichols* v. *Marsland*, 1875 L.R., 10 Ex. 255, 1876 L.R., 2 Ex. Div. 1, a proprietor of land had constructed ornamental ponds on his estate by damming up with artificial banks a natural stream which rose above his land and flowed through it, the water being allowed to escape from the pools successively by weirs into its original course. During an extraordinary rainfall the water in the pools rose, the artificial banks were carried away, and the water in the pools being suddenly let loose rushed down the course of the stream and injured the plaintiff's property. A jury having found that there was no negligence in the maintenance or construction of the pools, and that the flood was so great that it could not reasonably have been anticipated, though if it had been anticipated the effect might have been prevented,

it was held in the Court of Appeal, affirming the judgment of the Court of Exchequer, that this was in substance a finding that the escape of the water was caused by the act of God or *vis major*, and that therefore the defendant was not liable.

Similarly, if an escape of water caused by the malicious act of a third party interfering with a reservoir does damage the proprietor is not liable.

According to Lord Robertson in *Eastern and South African Telegraph Company, Limited* v. *Cape Town Tramway Company, Limited*, 1902, A.C. 393, the principle of *Fletcher* v. *Rylands*, "subjects to a high liability the owner who uses his property for purposes other than those which are natural." These words suggest a real limitation in the application of the principle. In *Rickards* v. *Lothian*, 1913, A.C. 263, property located on the second floor of a building leased to the defendant was injured through a continuous overflow of water from a lavatory basin on the top floor caused by the water tap having been turned on full and the water pipe plugged. A jury having found that this was done by the malicious act of some person, the defendant was assoilzied. Lord Fletcher Moulton, who delivered the opinion of the Privy Council in that case, having shown upon the authorities that the defendant was not liable on the principle of *Fletcher* v. *Rylands* for damage caused by the wrongful acts of a third person, proceeded—"But there is another ground upon which their Lordships are of opinion that the present case does not come within the principle laid down in *Fletcher* v. *Rylands*. It is not every use to which land is put that brings into play that principle. It must be some special use bringing with it increased danger to others, and must not be the ordinary use of the land or such a use as is proper for the general benefit of the community." His Lordship then quotes the statement of Lord Robertson to which I have referred, and also a passage from the judgment of Mr Justice Wright in *Blake* v. *Woolf*, 1898, 2 Q.B. 426, a case of damage to lower premises from flooding owing to a leak in a cistern on the top floor which had occurred without fault of the defendant. That passage is in these terms—"The general rule as laid down in *Rylands* v. *Fletcher* is that *prima facie* a person occupying land has an absolute right not to have his premises invaded by injurious matter, such as large quantities of water which his neighbour keeps upon his land. That general rule is, however, qualified by some exceptions, one of which is that where a person is using his land in the ordinary way, and damage happens to the adjoining property without any default or negligence on his part, no liability attaches to him. The bringing of water on to such premises as these and the maintaining a cistern in the usual way seems to me to be an ordinary and reasonable user of such premises as these were; and therefore if the water escapes without any negligence or default on the part of the person bringing the water in and owning the cistern, I do not think that he is liable for any damage that may ensue."

In the present cases it is not suggested that any damage was caused by water that had been collected in the paddling pond in the Lady Alice Park. What is maintained is, that the passage of water coming from the drainage area of the West Burn was on 5th August 1912 obstructed by the bridge at the head of the pond, and by the entrance to the culvert, with the result that instead of flowing in its natural channel water overflowed on to Inverkip Road and damaged the pursuers' property.

In *Fletcher* v. *Smith*, L.R., 2 A.C. 781, Lord Penzance indicated a view that the true measure of the obligation imposed upon those who divert the natural course of a stream is that they should construct the new and artificial watercourse in such a manner that it will be capable of conveying off the water that may flow into it from all such floods and rainfalls as may reasonably be anticipated to happen in the locality. The bridging or culverting by a public body of a small stream passing through their property in the neighbourhood of a town appears to me to be a reasonable and natural use of their property; and I therefore think that the real issue in the present cases is whether or not the defenders have by their negligence caused or materially contributed to the overflow of water from which the pursuers suffered damage. Negligence might be imputed to the defenders in connection either with the construction or maintenance of their works. As the latter point is not taken either in the pleadings or in the proof, the issue is confined to the former question.

The conclusion which I reach upon the evidence is that the pursuers in both actions against the Greenock Corporation have failed to prove fault against the defenders. It is said for the pursuers that the rainstorm which occurred at Greenock on 5th August 1912 was not a *damnum fatale*, as it was not a phenomenon of nature like an earthquake or a waterspout, the occurrence of which cannot be foreseen or the consequences thereof provided against by human skill. In the case of *Kerr* v. *Earl of Orkney* the Lord Justice-Clerk seems to indicate that under no circumstances can a fall of rain, however severe, be described in Scotland as a *damnum fatale*. The decisions of *Tennent* v. *Earl of Glasgow*, 1 Macph. 133, 2 Macph. (H.L.) 22, and *Nichols* v. *Marsland*, L.R., 2 Ex. Div. 1, rather indicate that an exceptional fall of rain may be treated as a *damnum fatale*. . . .

I reach the conclusion on the evidence that the rainfall of 5th August was so unusual and unprecedented that the circumstance that there was an overflow of water at the bridge or the mouth of the culvert erected by the defenders affords no *prima facie* evidence of the defective construction of these works. . . .

In the face of such evidence I should not hold that the pursuers had established that the defenders' works were defectively constructed. . . .

Even on the assumption that the pursuers

had established fault in the construction of the defenders' works they would still require to show as a reasonable inference from the evidence that the overflow from the defenders' works at the paddling pond was the proximate cause of the damage sustained by them, or at all events that it materially contributed to the damage in the sense, as I think, that but for this overflow they would not have sustained the damage for which reparation is sought. It does not appear to me that these actions raise any question of liability on the defenders' part for failure to make proper provision on Inverkip Road for carrying away surface water or altering the level of that road. If there is ground of complaint—I do not suggest that there is—against the defenders on either of these heads, liability attaches to them as road trustees, and they have not been sued in that capacity. In view of the circumstances that Inverkip Road at points higher up than the paddling pond was flooded a considerable time before there was any overflow either at the bridge or at the mouth of the culvert I should be inclined to hold that the pursuers had failed in their proof on this point in both actions. So far as the case for the Caledonian Railway is concerned the flooding from South Street, the collection of water in the Square from other sources than the drainage area of the West Burn, the ponding of water behind Roxburgh Street before any overflow of water from the pond occurred, increase in my mind the doubt as to the soundness of the inference in fact which the pursuers ask us to draw. My view therefore would be that, even if the defenders be held to guarantee the pursuers against damage from overflow from their works on the channel of the burn, the evidence fails to trace the damage to such overflow.

LORD ANDERSON—*Caledonian Railway Company*—In this action I agree without difficulty with the Lord Ordinary on certain parts of the case. Thus (1) I am of opinion with him that the law which falls to be applied is that which was laid down in *Kerr* v. *The Earl of Orkney*, 20 D. 298; (2) I further agree with the Lord Ordinary in holding that the rainfall in question was not a *damnum fatale*, and that that defence was rightly repelled in a case to which the law of *Kerr* v. *The Earl of Orkney* applies; (3) I also reach the conclusion that the pursuers have proved that the construction of the works at Lady Alice Park was defective, and that in consequence there was flooding from the burn and pond on to Inverkip Road; (4) I further hold that the defenders have failed to prove that the pursuers' retaining wall was defective in construction and that the pursuers were thus guilty of negligence contributing to the accident. Where I have had difficulty in the case is in holding that the pursuers have established a causal connection between the defective condition of the defenders' works and the collapse of the pursuers' wall. Any doubt I have, however, as to this part of the case is not of sufficient strength to lead me to determine that the Lord Ordinary was wrong in holding that it had been proved (*a*) that the overflow from the paddling pond reached the pursuers' wall in time to damage it; and (*b*) that this overflow in point of fact was a contributory cause of the collapse of the wall.

I therefore think that the judgment reclaimed against should be affirmed.

Glasgow and South-Western Railway Company—I have found this a much plainer and simpler case than the other, and I content myself with saying that I agree entirely with the opinion of the Lord Ordinary and with the judgment which he has pronounced.

The defenders, Greenock Corporation, appealed to the House of Lords.

The following *authorities* were referred to:—*Buccleuch* v. *Cowan and Others*, 1866 5 Macph. 214, 3 S.L.R. 138; *Nitro Phosphate and Odam's Chemical Manure Company* v. *London and St Katharine Docks Company*, (1878) L.R., 9 Ch. Div. 503; *Fletcher* v. *Rylands*, (1866) L.R., 1 Ex. 265, (1868) L.R., 3 H.L. 330; *Smith* v. *Kenrick*, (1849) 7 C.B. 515; *Nichols* v. *Marsland*, (1875) L.R., 10 Ex. 255, (1876) L.R., 2 Ex. Div. 1; *Box* v. *Jubb*, (1879) L.R., 4 Ex. Div. 76; *Rickards* v. *Lothian*, [1913] A.C. 263; *Eastern and South African Telegraph Company, Limited* v. *Cape Town Tramways Company, Limited*, [1902] A.C. 381; *Kerr* v. *Earl of Orkney*, (1857) 20 D. 298; *Chalmers* v. *Dixon*, (1876) 3 R. 461, 13 S.L.R. 299; *Menzies* v. *Breadalbane*, (1828) 3 W. & S. 235; *Lawrence* v. *Great Northern Railway Company*, (1851) 16 Q.B. 643; *Samuel* v. *Edinburgh and Glasgow Railway Company*, (1850) 13 D. 312; *Tennent* v. *Earl of Glasgow*, (1862) 1 Macph. 133, (1864) 2 Macph. (H.L.) 22; *Potter* v. *Hamilton and Strathaven Railway Company*, (1864) 3 Macph. 83; *Pirie* v. *Aberdeen Magistrates*, (1871) 9 Macph. 412, 8 S.L.R. 302; *Hanley* v. *Edinburgh Corporation*, 1912 S.C. 1199, 49 S.L.R. 1004, 1913 S.C. (H.L.) 27, 50 S.L.R. 521; *Hawthorn Corporation* v. *Kannuluik*, [1906] A.C. 105; *Fletcher* v. *Smith*, (1877) L.R., 2 A.C. 781; *Whalley* v. *Lancashire and Yorkshire Railway Company*, (1884) L.R., 13 Q.B.D. 131; Erskine, ii, 1, 2, ii, 9, 2, iii, 1, 13; *Campbell* v. *Bryson*, (1864) 3 Macph. 254; *Wilsons* v. *Waddell*, 1876, 3 R. 288, 13 S.L.R. 196, (1876) 4 R. (H.L.) 29, 14 S.L.R. 202; *Metropolitan Asylum District* v. *Hill*, (1881) 6 A.C. 193; *Nugent* v. *Smith*, (1876) L.R., 1 C.P.D. 423; *Bamford* v. *Turnley*, 1862, 3 B. & S. 62; *Blake* v. *Woolfe*, [1898] 2 Q.B. 426; Rankine on Landownership (6th ed.), 377; Beven on Negligence (3rd ed.), 80.

At delivering judgment—

LORD CHANCELLOR—The two actions which form the subject of these appeals were brought by the Caledonian Railway Company and by the Glasgow and South-Western Railway Company respectively against the Corporation of Greenock to recover damages for injury to the properties of the railway companies by flooding said to have been occasioned by works carried out by the Corporation.

The Lord Ordinary (Lord Dewar, whose loss to the bench and to the country we all deplore) decided in favour of the pursuers in both cases. The case was argued on

appeal before the First Division of the Inner House, and it was directed that minutes of debate should be prepared in order that the opinion of all the Judges might be obtained. That opinion by a majority in each case—7 to 6 in the case of the Caledonian Railway Company and 10 to 3 in the case of the Glasgow and South-Western Railway Company—was in favour of the Lord Ordinary's views, and the Inner House, in conformity with the opinion of the majority of consulted Judges, affirmed the decision of the Lord Ordinary.

From that decision the Corporation have appealed to your Lordships' House. The result of the appeal, in my opinion, depends mainly upon questions of fact.

. . . [*His Lordship narrated the facts.*] . . .

It remains to consider the questions of law raised on behalf of the appellants.

The question of the liability incurred by any person who interferes with a natural water-course was considered in the Court of Session in the case of *Kerr* v. *The Earl of Orkney*, (1857) 20 D. 298. In that case a dam had been constructed on a stream for the purpose of collecting water, and Lord Justice-Clerk Hope, at p. 302, makes the following observations as to the extent of the liability for damage occasioned by the escape of such water: — "Although we did not require any answer from the respondent upon the general point of Lord Orkney's liability for the consequences of his dam bursting from a violent fall of rain, yet I think it right to state the general principle on which the view of the Court is founded. The principle is — that if a person chooses upon a stream to make a great operation for collecting and damming up the water for whatever purpose, he is bound, as the necessary condition of such an operation, to accomplish his object in such a way as to protect all persons lower down the stream from all danger. He must secure them against danger. It is not sufficient that he took all the pains which were thought at the time necessary and sufficient. They were exposed to no danger before the operation. He creates the danger, and he must secure them against danger, so as to make them as safe, notwithstanding his dam, as they were before. It is no defence in such a case to allege the dam would have stood against all ordinary rains —it gave way in an extraordinary and unprecedented fall of rain which could not be expected. The dam must be made perfect against all extraordinary falls of rain — else the protection is not afforded against the operation which the party must accomplish. An extraordinary fall of rain is a matter which in our climate cannot be called a *damnum fatale*—supposing the doctrine so denoted by that term to be applicable, generally speaking, to a dam for collecting water. And the experience of the last fifteen years has shown that the increased drainage of the country brings down in heavy rains the whole water in a very short space of time, and therefore in floods of a weight and power and force of water quite unknown in former times. But against such a state of things the party forming such dams must completely provide so as to secure safety to those lower down the stream. When an operation is made which involves great risk to the safety of life and property, the condition on which alone that can be allowed which causes such risk is complete protection. A dam that gives way in a night's rain is not such as the maker was bound to erect. The fact that it gives way is a proof that his obligation was not fulfilled, and that the protection was not afforded which he was bound to provide. What shall be considered a *damnum fatale* in such a case I need not inquire, but of this I am very clear, that a great fall of rain and consequent accumulation and weight of water is not a *damnum fatale* which exempts the proprietor from liability for the failure of his operation, for it is against such accumulation and weight of water that he is bound to provide."

In my opinion the Lord Justice-Clerk in that passage correctly stated the law of Scotland, and it received approval in your Lordships' House when the *Earl of Orkney's* case came under consideration in *Tennent* v. *Earl of Glasgow*, (1864) 2 Macph. (H.L.) 22. In that case the defender had substituted a wall for a hedge as a defence for his property. A stream burst its banks at a point above the wall, and the water descending was dammed up by the wall, which after a time gave way, and considerable damage was done by the accumulated water to the lands of an inferior inheritor. In giving judgment Lord Westbury says at page 26—"This case differs very much from those which have been cited and relied on at the bar. If anything be done by an individual which interferes with natural occurrences, such as, for example, in *Lord Orkney's* case, throwing a dam across the course of a stream, it is undoubtedly the duty of that person so to construct the work as to provide in an efficient manner, not only against usual occurrences and ordinary state of things, but also to provide against things which are unusual and extraordinary. And therefore the decision of the Court in the *Earl of Orkney's* case, where a dam gave way, was properly referable to that circumstance."

Lord Chelmsford says at page 28 of the report—"This case is not at all like the case of *Lord Orkney* — that is, the case with respect to the dam—because there, as I have already intimated, the stream before the erection of the dam flowed harmlessly to the pursuer's mill. Lord Orkney erected a dam by which he obstructed and headed up the course of the water. He was bound therefore under those circumstances—interfering with the stream and with another person's rights over the stream—to provide against every contingency. And although it was an extraordinary flood in that case which occasioned the bursting of the dam, it was one which he ought to have provided against. He ought to have made the dam capable of resisting any force which might be directed against it."

These authorities justify the view of the law propounded by Professor Rankine in his work on the Law of Land Ownership in

Scotland (4th ed.), p. 376—"The sound view seems to be that even in the case of an unprecedented disaster the person who constructs an *opus manufactum* on the course of a stream or diverts its flow will be liable in damages provided the injured proprietor can show (1) that the *opus* has not been fortified by prescription, and (2) that but for it the phenomena would have passed him scatheless." This passage, in my opinion, expresses the true view of the law applicable to this case.

The appellants contend that they are not responsible, as the injury to the wall was in the nature of *damnum fatale*. What amounts to *damnum fatale?* Its definition is given by Lord Westbury in *Tennent* v. *Earl of Glasgow*, 2 Macph. (H.L.) 22, pp. 26 and 27 — "Under these circumstances what has occurred is one of those things which do not involve any legal liability—what are denominated in the law of Scotland *damnum fatale* occurrences—circumstances which no human foresight can provide against, and of which human prudence is not bound to recognise the possibility, and which when they do occur, therefore, are calamities which do not involve the obligation of paying for the consequences that may result from them."

Lord Cockburn expressed the same idea in a picturesque phrase used by him in *Samuel* v. *Edinburgh and Glasgow Railway Company*, (1850) 13 D. 312, at p. 314, when he said—"I think he is bound to provide against the ordinary operations of Nature but not against her miracles."

In my opinion the appellants have entirely failed to establish any defence on this ground. It is true that the flood was of extraordinary violence, but floods of extraordinary violence must be anticipated as likely to take place from time to time. It is the duty of anyone who interferes with the course of a stream to see that the works which he substitutes for the channel provided by nature are adequate to carry off the water brought down even by extraordinary rainfall, and if damage results from the deficiency of the substitute which he has provided for the natural channel he will be liable. Such damage is not in the nature of *damnum fatale*, but is the direct result of the obstruction of a natural water-course by the defenders' works followed by heavy rain.

Reliance was placed by the appellants upon the case of *Nichols* v. *Marsland*, (1875) Law Reports, 10 Exchequer, 255, and 2 Exchequer Division, 1. In that case it was decided that if the escape of water from a reservoir was due to the act of God, the person maintaining the reservoir is not liable. As Lord Justice Mellish put it at page 5—"If, indeed, the damage were occasioned by the act of the party without more—as where a man accumulated water on his own land but owing to the peculiar nature or condition of the soil the water escapes and does damage to his neighbour, the case of *Rylands* v. *Fletcher* establishes that he must be held liable."

The Lord Justice then goes on to decide that if the bursting of the reservoir was due to the act of God the liability to pay damages does not arise.

Nichols v. *Marsland* had been tried by a jury, and the finding of the jury is thus stated by Lord Justice Mellish at page 5 of the report of the hearing in the Exchequer Chamber in 2 Exchequer Division —"The remaining question is, did the defendant make out that the escape of water was owing to the act of God? Now the jury have distinctly found not only that there was no negligence in the construction or the maintenance of the reservoirs, but that the flood was so great that it could not reasonably have been anticipated, although if it had been anticipated the effect might have been prevented; and this seems to us in substance a finding that the escape of the water was owing to the act of God. However great the flood had been, if it had not been greater than floods that had happened before and might be expected to occur again, the defendant might not have made out that she was free from fault, but we think she ought not to be held liable because she did not prevent the effect of an extraordinary act of nature which she could not anticipate."

Two observations arise upon this case of *Nichols* v. *Marsland*.

The first is that the case is dealt with in the argument and judgments with reference merely to the accumulation of water in a reservoir. There is no reference to the fact that the course of a natural stream had been interfered with. The operations which had in fact been carried out are described on page 256 of the report of the case in L.R., 10 Ex., as follows:—"A natural stream called Bagbrook, which rose in higher lands, ran through the defendant's grounds, and after leaving them flowed under the four county bridges in question. After entering the defendant's ground the stream was diverted and dammed up by an artificial embankment into a pool of three acres in area, called 'the Upper Pool,' from which it escaped over a weir in the embankment, and was again similarly dammed up by an artificial embankment into the 'Middle Pool,' which was between one and two acres in area. Escaping over a weir in the embankment it was again dammed up into the 'Lower Pool,' which was between eight and nine acres in area, and from which the stream escaped into its natural and original course." This decision having reference merely to the storage of water as in *Rylands* v. *Fletcher*, does not affect the question of liability for interference with the course of a natural stream as laid down in the authorities cited above.

Secondly, the jury had found that the damage was occasioned by the act of God, and on page 6 of the report in the 2nd Exchequer Division there is this note—"The question whether the rule should be made absolute for a new trial, on the ground that the verdict was against the evidence, was reserved for future discussion if the plaintiff should desire it."

It does not appear that this question was ever again brought up for discussion in the Exchequer Chamber.

In the case now under appeal the Lord Ordinary found, and in my opinion rightly found, that the flood could not be regarded as in the nature of *damnum fatale*, and that the appellants in constructing the culvert ought to have seen the possibility of such an occurrence and to have provided against it. In my opinion both the appeals fail upon all points, and should be dismissed with costs.

LORD DUNEDIN—I concur. The Lord Chancellor has gone so fully into the evidence, and I am so entirely in accordance with the view he has taken of the events of the morning of the 5th August 1912, that I cannot think of inflicting on your Lordships what would only be a repetition of what he has said. I agree with the Lord Ordinary and disagree with the Lord President as to the time at which the overflow at the pond took place. The view of the Lord President is, I think, based on what I conceive to be an erroneous impression—that Inglis went only once up the hill. Further, it does not square with the times of the various occurrences. That the fall of the Glasgow and South-Western wall was occasioned by the descent upon it of the wreckage of the garage seems to me certain, the evidence being the character of the debris which was carried down the tunnel towards Prince's Pier. That the wrecking of the garage was due in its turn to the overflow from the pond is made out, in my opinion, first, because of the synchronisation of the various time observations, and second, because without some sudden and great access of pressure I do not think the garage would have been wrecked; and such sudden and great access is easily attributable to a great overflow which, it is admitted, did at some time *de facto* take place. Moreover, once we find that the overflow sent a great additional body of water down the hill, it becomes evident that that water would maintain at a pressure level the water which had lodged behind the Caledonian Company's retaining wall, and which but for this maintenance might have cleared itself through the weepholes.

As to the appellants being in fact responsible for the alteration of the bed of the stream, which made what happened possible, there is no dispute. The only question that remains is whether the responsibility in fact entails a responsibility in law.

I think I am making an accurate statement when I say that the case of *Kerr* v. *Earl of Orkney* has been since its date considered by Scottish lawyers to have been well decided, and it will from henceforth enjoy the approval of the noble Lord on the Woolsack, and I believe of the other noble Lords who have taken part in this appeal. Mr Constable in his address, which was equally admirable for its force and its moderation, felt that he was pressed by that case, and argued that though the decision itself was right, the dicta in it must be regarded as modified by what had since been decided, and notably by the cases of *Nichols* v. *Marsland* and *Fletcher* v. *Smith*.

Nichols v. *Marsland* was, as his Lordship has pointed out, decided upon the footing of the verdict of the jury, which, as construed by the Court, amounted to a direct finding that the occurrence in question was an act of God, which is the exact equivalent to the expression used in the Scotch cases *damnum fatale*. Lord Justice-Clerk Hope, in *Kerr* v. *Earl of Orkney*, expressly saved the case of *damnum fatale*, adding that whatever might be a *damnum fatale*, an extraordinary fall of rain in the climate of Scotland could not be so considered. But, further, what I think makes it clear that the doctrine of act of God or *damnum fatale*, which was what was given effect to in *Nichols* v. *Marsland*, did not in any way weaken the authority of *Kerr* v. *The Earl of Orkney*, is the way in which that case was considered and treated in a subsequent case in your Lordships' House, viz, *Tennent* v. *Earl of Glasgow*, 2 Macph. (H.L.) 22. In that case the Earl of Glasgow had built a wall along a road where a hedge had been. There was a burn which ran parallel to the road at a distance of about a quarter of a mile. The burn eventually entered beneath the road by a conduit, and an opening had been made in the wall to allow of the burn entering the conduit. There was an extraordinary fall of rain, and the burn burst its banks at a place where there was a bend, invaded the road at a place far above the entrance of the conduit, and formed an accumulation behind the wall, through which it eventually burst and caused the damage complained of. Lord Chancellor Westbury said as follows:—"If anything be done by an individual which interferes with natural occurrences, such as, for example, in Lord Orkney's case, throwing a dam across the course of a stream, it is undoubtedly the duty of that individual so to construct the work as to provide in an effectual manner not only against usual occurrences and ordinary states, but also to provide against things which are unusual and extraordinary, and therefore the decision of the Court in the *Earl of Orkney's* case was properly referable to that circumstance. . . . But there was nothing which the noble defender was bound to guard against in the building of a wall along the public road. . . . The wall was not erected for the purpose of interfering with anything like that which has been called at the Bar the course of nature. . . . Under the circumstances what has occurred is one of those things which do not involve any legal liability—which are denominated in the law of Scotland *damnum fatale* occurrences—circumstances which no human foresight can provide against, and of which human prudence is not bound to recognise the possibility, and which when they do occur, therefore, are calamities that do not involve the obligation of paying for the consequences that may result from them." And in an earlier part of his judgment he had said—"It might have been a very material thing in this case if the injury, or the wrong I should rather call it, sustained by the appellant could have been shown to be caused by a state of circumstances directly occasioned by the building of the wall by

the noble defendant over the conduit and along the parish road, because it is clear that the natural course of the stream was down the parish road and that the conduit provided a means of carrying the water beneath the parish road."

It is clear that a case decided by the Inner House of the Court of Session, and afterwards approved by your Lordships' House in another Scotch case, cannot as authority be overruled or modified by a decision of the English Exchequer Chamber. But the truth is that once it is recognised that *Nichols* v. *Marsland* proceeded on the verdict of the jury, there is no inconsistency between that case and the case of *Kerr* v. *Earl of Orkney*.

As regards the case of *Fletcher* v. *Smith* there was again a finding of the jury that precludes any effect of it as a decision against the case of *Kerr*, for the jury found that the substituted water-course was not as efficient as the old. The appellants however pinned their faith to the preference expressed by Lord Penzance (though he expressly declined to give a positive opinion on the matter) for the second as opposed to the third of the questions he put. These questions were— "Secondly, were the defendants bound, as they were making a new and artificial water-course, to construct it in such a manner that it would be capable of carrying off the water that might flow into it from all such floods and rainfalls as might reasonably be anticipated to happen in that locality? Or, thirdly, were they bound to make provision for any such quantities of water as might possibly be discharged into it from any mere rainfall, however unusual and however contrary to present experience?" Now the second proposition, as contrasted with the first, is really of no assistance to the appellants unless it is possible to extract from the phrases used a definition of what is and what is not a *damnum fatale*. The appellants argue that, applying Lord Penzance's test, if they can show that this rainfall was much in excess of what had been previously observed in Greenock, that is enough. I do not think that you can rightly confine your view to Greenock alone. No one can say that such rainfall was unprecedented in Scotland, and I think the appellants were bound to consider that some day Greenock might be subjected to the same rainfall as other places in Scotland had been subjected to. With deference to Lord Penzance I think that there is no clear-cut choice in law between his two propositions, but that it always comes to a question of fact whether such and such an occurrence was a *damnum fatale*, and I hold a clear opinion that this flood was not.

I agree with the Lord Chancellor that the law is accurately stated by Professor Rankine in his book. I may perhaps add that the expression "fortified by prescription" does not I think mean that the work is protected by the actual prescription statutes, but that by analogy (as such analogy has been applied in the case of servitudes) the existence of a state of things for the period of the long prescription may serve to prevent any person alleging that another state of things was the true state of nature.

The appeals, in my judgment, should be dismissed.

LORD SHAW—I concur.

The case on the facts is, so far as the operations of the Corporation were concerned, of a simple character. That body made an operation in the *alveus* of a natural stream. This stream, added to in volume here and there by little tributaries, was wont to flow to the sea in a wide natural channel. It is admitted that on the occasion of the heavy rainstorm in question, apart from the check, accumulation, and distortion caused by the appellants' operations, the natural channel would have accommodated the rainstorm and passed its waters safely to the sea.

This natural state of matters was interfered with by the formation of a pond or dam so constructed as, of course, to raise the stream level. The operation, however, was such that when the overflow from the spate in question occurred that overflow —thus gathered and otherwise insufficiently provided for—was sluiced in great and damaging volume down one of the public roads of Greenock. The result accordingly is that this operation — initially an operation *in alveo*—was so conducted that a fresh escapement and *alveus* had to be found by the water. It seems somewhat elementary to declare that an operation thus resulting in the creation of a new and devastating and unnatural *alveus* for a natural and otherwise safely flowing stream must carry with it the responsibility for the damage so caused.

In the view taken by that very careful and sagacious Judge Lord Dewar (Lord Ordinary) there is no refinement of fact about the case; it is as broad as has been stated. He says—"I think it is out of the question for them (the Corporation) to argue that they were entitled to bury the burn, which from time immemorial had carried flood waters safely to the sea, and to alter the levels so that the public highway, leading on a descending gradient into the town, became the only means by which these flood waters could escape."

As to whether this was the actual state of the facts I express my opinion in the affirmative. I agree with the analysis of and conclusions upon the evidence made by the learned Lord Ordinary and by my noble and learned friend on the Woolsack. May I add that I humbly think that some of the doubts and difficulties on fact in the judgments of the learned minority in the Court below have arisen from a misapprehension as to the time when the overflow from the pond took place. I refer in particular to the judgment of the learned Lord President, who holds "that the overflowing of the burn at the paddling pond occurred about a quarter past twelve o'clock." This view was not strongly defended in argument. It, I think, erroneously postpones the occurrence by at least three-quarters of an hour, and this error dislocates the entire sequence of and

causal relation between the events in the case. There is, in short, nothing to induce me to question or to differ from the learned Judge of first instance as to fact.

This being as stated, the law of the case appears to be in no way doubtful. I have never known the law of Scotland as stated in the judgment of the Lord Justice-Clerk (Hope) in the *Earl of Orkney's* case to be questioned. On the contrary, it has been since its date accepted as sound; and I think it right to add, being in this fortified by the opinion of the noble and learned Lord Chancellor, that I know of no decided authority for the proposition that there is a difference on this topic between the law of England and that of Scotland.

A person making an operation for collecting and damming up the water of a stream must so work as to make proprietors or occupants on a lower level as secure against injury as they would have been had nature not been interfered with; and this is so although the water accumulated suddenly, or the fall was extraordinary or even unprecedented in quantity. These are the general propositions of the law. While if any help as to Scotch climatic conditions might be sought one would get that also from the observation made by Lord Justice-Clerk Hope, and, by the way, plainly applicable in the present case—"An extraordinary fall of rain . . . in our climate cannot be called a *damnum fatale*—supposing the doctrine so denoted by that term to be applicable, generally speaking, to a dam for collecting water."

No doubt whatsoever is thrown upon these doctrines by *Nichols* v. *Marsland*. A perusal of the judgments and procedure therein shows that it was held by a jury's finding that the disaster did as a matter of fact occur by a *damnum fatale*. I cannot, I confess, view the case as wholly satisfactory, but its conclusion was reached undoubtedly and solely by the road of settled fact—an affirmance of *damnum fatale*.

Such an affirmance has not been made in the present case, and in my opinion, on its merits as well as on the guide to a proper view thereof as expressed in the outstanding authority of *Kerr* v. *Earl of Orkney*, which I have cited, such an affirmance could not be made. These occurrences arose from a heavy, it may be an extraordinary and it may be an unprecedented, spate. That spate would have harmlessly passed away but for the appellants' operations. These operations, however, converted them into sources of harm and damage, and the appellants are thus answerable therefor.

In the words of Lord Chelmsford in *Tennent* — a case which in substance entirely approved of the principle of *Kerr* v. *Earl of Orkney*—"He was bound therefore under those circumstances—interfering with the stream and with another person's right over the stream—to provide against every contingency. And although it was an extraordinary flood in that case which occasioned the bursting of the dam, it was one which he ought to have provided against."

It is accordingly quite unnecessary to go into the doctrine of *damnum fatale* in general. I am not entirely satisfied that that expression or the equivalent expression, "the act of God," will ever be capable of complete, exact, and unassailable definition. The nearest approach which the law has made to that point is in the judgment of Lord Chancellor Westbury in *Tennent*. Further, I may be allowed to express the doubt whether expressions such as those used by Lord Cockburn in *Samuel* v. *Edinburgh and Glasgow Railway Company*, R.F. 13 D. 314, as to Nature's "miracles" do anything to clarify, or indeed whether they do not confuse, the issue. And I am not quite clear that when in *Potter* v. *Hamilton and Strathaven*, 3 Macph. 86, Lord Ardmillan supplemented his citation from Lord Westbury's judgment in *Tennent's* case by the observation "A person who makes a new work is bound to protect those on a lower level from extraordinary as well as ordinary accumulations of water, provided they be not such as to amount to an unprecedented event, so improbable and unnatural as could not have been reasonably anticipated," such a gloss is warranted by law. Its effect might be to whittle away and undermine an affirmation of the law which without it would be, as it was meant to be and is, broad and firm.

LORD PARKER—[*Read by Lord Shaw*]—I agree. With regard to the facts I cannot find any valid reason for dissenting from the findings of the Lord Ordinary, and *Kerr* v. *Earl of Orkney* (approved by this House in *Tennent* v. *Earl of Glasgow*) is undoubtedly the governing authority. I do not understand that the Lord Justice-Clerk in the former case intended to decide that the Scottish doctrine of *damnum fatale* could never have any application in cases such as that with which he was dealing, but merely that the facts before him disclosed no such *damnum*. If this be so, *Kerr* v. *Earl of Orkney* is not in conflict with the English authorities. *Rylands* v. *Fletcher* saved the question whether the act of God might not have afforded a defence, and this question was answered in the affirmative in *Nichols* v. *Marsland*, in which the act of God had been established by the finding of the jury, though I have some doubt whether such finding was correct. With regard to *Fletcher* v. *Smith* it decides nothing, but I think the House was inclined to accept the view of the law which had been taken in *Nichols* v. *Marsland*, though it is true that Lord Penzance's alternatives are not very clearly stated.

LORD WRENBURY — A question much debated at your Lordships' Bar has been as to the exact time at which the flood water caused the paddling pond to overflow. For the decision of this case I do not find it necessary to arrive at any concluded opinion upon this question, and that for the following reasons:—

The result of the works which the appellants constructed at the Lady Alice Park was that throughout the area of the land of the Corporation the floor of the valley was raised by filling up the V-shaped hollow of

the valley to a horizontal level, which was approximately the level of the Inverkip Road, and that there was inserted in the soil the culvert through which the water of the drainage area was thereafter to be conducted. Upon the plan are sections which show (1) the sectional area of the valley below a horizontal plane coinciding approximately with the plane of the level of the Inverkip Road as the valley existed before the Corporation's works were constructed, and (2) the sectional area of the culvert. The sectional area of the former is of course many times that of the latter. The volume of flood water that the former could carry was therefore many times that which the latter could carry. And there has further to be considered the additional friction due to liquid flow in a culvert as distinguished from liquid flow in an open valley. The evidence is that the minimum sectional area of the valley below the horizontal level of the Inverkip Road would have carried 2500 cubic feet per second, an amount nearly five times as much as was here in question.

The natural *alveus* of the stream (had it remained unaltered) would therefore have sufficed to take not only that which was flowing down the burn and reaching the paddling pond, but all the water coming from the westward down the Inverkip Road, swollen as it was by water coming down what I may call tributary roads into the Inverkip Road. Some of this, no doubt, say a few inches in depth, might have followed the line of the Inverkip Road alongside of the burn. But all of it could have been and the great bulk of it would have been received by the lower lying *alveus* of the burn. These propositions are as true of the time before the paddling pond overflowed as after that time. The only difference before and after that happened was that at the moment when the pond overflowed the fact was that the volume of water which, as between the burn and the road, came down the former, as distinguished from the latter, proved to be in excess of the capacity of the culvert whether it was at that time freely open or partially choked with debris. But the Corporation were responsible for all the water which but for their works would have found a free vent down the *alveus* of the stream, and of this the paddling pond water was but part.

The evidence nowhere discloses that at the time, whatever it was, at which the pond overflowed anyone detected a greater volume of flood. It was greater, no doubt, but upon the evidence the ravages of the flood are attributable not to this overflow water as distinguished from other water, such as the volume of water coming from the west, as to which Mr Peile speaks, but to all the mass of water of which this overflow water formed some but not a principal part.

The other matter upon which I will add a word is as to the law. Numerous cases have been cited, beginning in England with *Rylands* v. *Fletcher*, L.R., 3 H.L. 330, and in Scotland with *Samuel* v. *Edinburgh and Glasgow Railway Company*, 13 Dunlop 312, and *Kerr* v. *Earl of Orkney*, 20 Dunlop 298. But in none of these was the question one as to liability for the consequence resulting from works *in alveo fluminis* whereby the natural *alveus* was filled up and the flow of water under the force of gravity thrown into a new channel at a new and higher level. The effect of the Corporation's works was that, except in so far as their culvert sufficed to take and took water coming from the westward, the Inverkip Road was substituted for the V of the valley and became the channel by which all that water had to be drained away. In such a case the Corporation is responsible, I conceive, for resultant damage howsoever arising. The responsibility to provide a substituted channel is not limited to providing a channel sufficient to meet all demands which might reasonably be anticipated, or even all demands (in excess of the ordinary) short of the act of God. The Corporation must provide a substituted channel which will be equally efficient happen what will. Assuming an act of God, such as a flood wholly unprecedented, the damage in such a case results not from the act of God but from the act of man in that he failed to provide (as there was before) a channel sufficient to meet the contingency of the act of God. But for the act of man there would have been no damage from the act of God.

The case is not that of a man who has brought a wild beast upon his land and has effectually chained him, and the chain is broken by the act of God. That was *Nichols* v. *Marsland*, L.R., 10 Exch. 255, 2 Ex. Div. 1. It is a case in which the act of God (if there was one) brought the wild beast, and but for the act of man there was a safe exit for the wild beast, and he would have gone away and there would have been no injury. The act of man consisted in closing the exit which had it remained would have rendered the advent of the wild beast harmless. To construct a reservoir on your own land is a lawful act. To close or divert a natural line of flow so as to render it less efficient is not. It has never been held that in such a case there is not liability.

Upon the facts in the Glasgow and South-Western case I do not add anything. I am satisfied that, whether their wall fell before or after the overflow of the pond, the damage resulted from the fact that the Corporation had made the Inverkip Road a sort of substituted *alveus fluminis*, and that the wreckage of the garage, the consequent blocking of the Glasgow and South-Western culvert, and the resultant fall of the wall, are due to that state of things.

Upon the Caledonian case I have felt much more difficulty. When the Glasgow and South-Western wall fell at 11·40 or 11·45 there was opened to the flood a new channel of ample capacity and at a much lower level, viz., the Glasgow and South-Western tunnel down to the Princes Pier. There was, I think, upon the evidence, very considerable means of access from

the Inverkip Road to that new channel. The respondents have an arduous task to maintain that the fall of the Caledonian wall some half-hour later, at 12·10, was due to water coming from the westward down the Inverkip Road and not flood water of which there was plenty reaching the Station Square from other directions. But as your Lordships are satisfied that the evidence is sufficient to support the Caledonian case, I do not take it upon myself to differ from your Lordships' conclusion in that case.

Their Lordships dismissed the appeals with expenses, and affirmed the interlocutors appealed from.

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