

THE HIGH COURT
PERSONAL INJURIES

[2008 No. 4028P]

BETWEEN:**PENNY STEWART****PLAINTIFF****-AND-****ELECTRICITY SUPPLY BOARD****DEFENDANT****JUDGMENT of Mr. Justice Twomey delivered on the 26th day of January, 2018.****Summary**

1. This is a very unfortunate case since it involves the plaintiff, a woman who is in her sixties ("Ms. Stewart"), who was badly electrocuted on a lane leading to her house in Cahersiveen, Co. Kerry some 13 years ago on Saturday the 5th November, 2005. At the time of the accident, tree-felling was going on in the lane and Ms. Stewart was struck by a falling electricity wire, owned and operated by the ESB. Ms. Stewart is suing the ESB for the significant personal injuries which she suffered.

2. The primary function of this Court, in a personal injuries action, is to decide whether a defendant's acts or omissions *caused* the personal injuries in question and if so, if these acts or omissions amounted to negligence. This particular case turns on causation, namely whether the electrocution was caused by the ESB. This issue can only be determined by a consideration of all of the circumstances in and around the time of the accident.

3. Although Ms. Stewart was a very convincing witness, her testimony regarding the causation issue is of limited assistance. This is because she has very little recall of the events of the day of the accident. This is understandable since she is suffering from serious memory loss which she attributes to the electrocution. In essence, she testified that she was on the laneway close to her house with Mr. Karyl Houston who along with Mr. Batt O'Shea was felling trees on the lane. The next thing she remembers is waking up in hospital after being electrocuted.

4. This Court must decide on the balance of probabilities whether the fracturing of the electricity wire, which led to her electrocution, was a spontaneous fracturing of the overhead wire which led to the wire falling to the ground to electrocute Ms. Stewart or whether, as claimed by the ESB, the plaintiff's electrocution was caused by the fact that Mr. Houston and Mr. O'Shea caused a tree of 11 metres to be felled, which tree struck the outer of three electricity wires, which led the outer wire to strike the middle wire. This, the ESB claims, caused a short circuit, which led to the fracturing of the middle wire and the loose middle wire then fell to the ground and in the process of being 'earthed' by making contact with the ground, it electrocuted Ms. Stewart (and Mr. O'Shea).

5. For the reasons set out in this judgment, this Court concludes that the plaintiff has failed to establish on the balance of probabilities that the accident occurred as she describes.

Relevant facts

6. Mr. Houston is a very good friend of Ms. Stewart and at the time of the accident, he used to visit her twice a week. On the day of the accident he was using a chainsaw to cut down trees on one side of the narrow laneway leading to Ms. Stewart's house, which is just over 5 metres in width. He is not a qualified tree surgeon nor did he have any specialist equipment, apart from a chainsaw. The trees were growing beside and in some cases on a raised bank which was 1.7 metres or so above the level of the laneway. On the other side of the laneway were the electricity wires running parallel to the laneway. This relevant span of electricity wires consisted of three wires running parallel with each other and the middle wire was slightly elevated from the two outer wires between two poles about 80 metres apart.

7. Assisting with the operation was a local farmer and neighbour, Mr. O'Shea. Before the accident, Mr. Houston had cut down two trees and chopped them into firewood. He planned to do likewise with the third tree. His evidence was that the first two trees were of sufficient girth that once he had made the appropriate cuts in the trees, the trees' own weight would cause the trees to fall. As regards the third and final tree he was felling,, his evidence was that this was of a lesser girth and so he made two cuts on either side of the tree and attached a blue rope to this tree with a view to attaching the rope to his van and pulling the tree down. His evidence was that this was the only tree to which he attached a blue rope. His evidence was that this tree was no more than six metres in height. Mr. Houston also gave evidence that all the trees on the bank were of a height that if they fell they would not touch the electricity wires. The evidence was that the electricity wires opposite this tree were at a height of 8.8 metres. It follows that if that tree was only six metres in height, it would not make contact with the electricity wires even if it fell directly across the narrow lane towards the electricity lines, instead of falling along the bank, parallel to the electricity wires.

8. The ESB's claim is that the third tree felled by Mr. Houston was 11 metres in height, which was a sufficient height to make contact with the electricity wires if it fell towards those wires, which the ESB say is what happened.

9. Although Mr. Houston intended to use his van to pull down the tree, this was not what happened because Mr. Houston stated that Mr. O'Shea ending up pulling the rope and this caused the tree to fall. Mr. Houston's evidence was that the tree fell parallel to the bank (and thus parallel, rather than perpendicular to the electricity wires) and that it bounced on the bank before the top part of the tree ended up on the laneway and that he kicked the bottom part of the tree onto the laneway so as to chop it up into firewood.

10. Mr. Houston gave evidence that he had made cuts in that tree in such a way that it would fall on the bank and not on the laneway. He also stated that he intended for the rope to be pulled in a direction, such that the tree would fall on the bank, and thus parallel to the electricity wires.

Inconsistent evidence

11. One inconsistency with Mr. Houston's evidence in this regard is that, if the tree was only six metres in height as he claims (and as the wires were 8.8 metres off ground level), and it was his intention to have the tree on the lane (since he says he kicked it onto to

the lane), there was no reason for him to be concerned about the tree falling on the bank (parallel to the wires) rather than on the lane (perpendicular to the wires). His concern about the direction in which the tree fell is consistent with the tree not being six metres, but being tall enough to touch the electricity wires if it did not fall in the manner he intended, i.e. onto the bank and not across the lane in the direction of the wires.

12. Another inconsistency with Mr. Houston's evidence is his statement that he would have preferred if Mr. O'Shea had not helped him in felling the tree. If there was no causal connection between the felling of the trees and the electrocution, as alleged by Mr. Houston, it is difficult to see why he would regret Mr. O'Shea's involvement in the pulling down of the the third tree, since it is Mr. Houston's case that the felling of the tree had nothing to do with the falling of the electricity wire.

13. While Mr Houston gave evidence that the felled tree did not touch the electricity wires, his evidence was that about one minute, or a minute and a half, after the tree fell, he saw blue sparks coming from the wires at the bottom of the lane. The lane way is 60-70 metres in length and the bottom of the laneway was 30-40 metres from where Mr. Houston was felling the tree as he was at about the midway point in the lane. Then he says a loose electricity wire "*recoiled*" up to the top of the lane at huge speed to where Ms. Stewart and Mr. O'Shea were standing. Both Ms. Stewart and Mr. O'Shea were electrocuted and suffered significant injuries.

14. To enable the emergency services access the laneway, Mr. Houston removed the tree from the laneway by cutting it into three sections and tossing those sections onto the bank.

The basis of the claim being made by Ms. Stewart

15. It is Ms. Stewart's case, in reliance primarily on the evidence of Mr. Houston, that her electrocution, was not caused by the tree striking the overhead wire, but by a spontaneous snapping of the electricity wires and based on Mr Houston's evidence this occurred not opposite where he was cutting trees, but at the bottom of the lane. In support of this claim, Ms. Stewart claimed that prior to the accident, the lines had previously fractured, although she could not be sure whether this was before or after 2003 (two years prior to her accident in 2005). This is relevant because the wires in question were replaced in 2003 and so were relatively new wires. She also relied on the evidence of her daughter (Ms. Amy Myers) who gave evidence that in 2009 or 2010 she witnessed an electricity wire on the laneway hanging loose and she produced a photograph from that time of a loose hanging wire. To explain this, counsel for ESB put to Ms. Myers a record of a call from Ms. Stewart to Ms. Caitriona O'Regan of ESB on the 17th February, 2009. Ms. O'Regan confirmed that she had received a call from Ms. Stewart to the effect that a tree had brought down a cable in her driveway. Ms. Myers was asked if this was the incident to which she was referring. However Ms. Myers stated that she did not witness a tree striking the wire that she saw hanging loose and which she photographed on the day in question.

Analysis

16. If Ms. Stewart's claim in this case is to be successful it would mean that it was a complete coincidence that the electricity wire snapped at the same time as the trees were being cut down within the vicinity of the cables. While this is no doubt a possibility, it is this Court's task to determine whether it is more probable, than not, that this did in fact occur. Thus, this Court must decide whether on the balance of probabilities it was simply a coincidence that Mr. Houston (with Mr. O'Shea's assistance) cut down a tree within the vicinity of the electricity wires at almost the exact same time as the electricity wire unilaterally snapped so as to cause Ms. Stewart's electrocution or whether there is a causal connection between the two events.

Eye-witnesses

17. As regards the eye-witnesses on the day, Ms. Stewart was a calm, compelling and convincing witness, particularly when one considers the trauma she went through. However, her evidence in determining the causation issue is of little assistance, since she remembers little or nothing of the day of the accident.

18. The other eye witness is Mr. Houston and he gave evidence that the tree did not fall anywhere near the electricity wires. Mr. Houston was not as calm or as convincing a witness as Ms. Stewart and he was at times agitated and emotional.

The other eye-witness

19. It is relevant to note that the only other eye witness to the electrocution, Mr. O'Shea, who had himself been electrocuted in the incident, issued proceedings not just against the ESB but also against Mr. Houston in relation to his electrocution. Mr. O'Shea was not called to give any evidence. However, Mr. Houston accepted during his cross examination that Mr. O'Shea had issued proceedings against Mr. Houston in relation to the electrocution. Mr. Houston's evidence was that these proceedings although issued against him had not been progressed.

20. Although not in any sense determinative of the causation issue, it is nonetheless the case that the issue of these proceedings by Mr. O'Shea against Mr. Houston lends some support to the view that Mr. O'Shea, the other eye-witness on the day, felt there was a connection between the felling of the tree and the fracturing of the electricity wires, while of course the plaintiff's case is that there is no such causal connection..

Evidence of ESB personnel

21. In considering whether it was simply a coincidence that Mr. Houston was involved in felling a tree at the same time as the electricity line snapped, as he alleges or whether the tree hit the electricity wire and caused it to snap, regard must also be had to the evidence of ESB personnel who attended the scene of the accident .

22. Mr. Cormac Collins was at the time of the accident a supervisor with ESB for the area. He was a convincing witness. He gave evidence that the applicable safety regulations required there to be a two metre radial clearance between electricity wires and all trees, so that the natural movement of trees in the wind would not lead to contact between the trees and the wires. He explained that, from a safety standards perspective, there was no prohibition on tall trees being in the vicinity of electricity wires such that if they fell they would touch the wires, since as he explained it, if the ESB was to cut down all trees that were within the falling distance of electricity wires, it would lead to a huge cull of trees in the country. However it was the case that those tall trees should not be within 2 metres of the electricity wires.. Evidence was given that when the accident site was inspected two days after the accident none of the trees on the lane were within two metres of the electricity wires at the time of the accident.

23. Mr. Collins gave evidence that he arrived on the site on the day of the accident just at the time of the arrival of the rescue helicopter. He gave evidence that on that day the trees on the bank were high enough that if they fell they would make contact with the electricity wires as they were a number of metres over the wires. He stated that this was very different from the photograph taken on behalf of the plaintiff in 2015, some ten years after the accident, which showed a section of the trees 'topped' to height of some six metres, which was below the height of the wires, which were at 8.8 metres.

24. His evidence was that on the day of the accident the middle wire was broken and that this had broken at about the half way

mark up the lane, midway between the electricity pole at the top of the lane and the electricity pole at the bottom of the lane. This mid-way point is roughly opposite where Mr. Houston accepts that he was cutting the third and final tree.

25. In order to restore the electricity supply, which had been cut off by the accident, Mr. Collins arranged for the middle wire to be completely replaced on the day of the accident. To do this, the middle wire was cut at the bottom pole and a new wire attached there using a connector. As this wire was not long enough to cover the full span, it was connected to another wire mid way along the span, using a second connector, which was then connected close to the top pole using a third connector. He gave evidence that the presence of a connector close to the bottom pole therefore was not an indication that the wire had fractured at that juncture, as claimed on behalf of the plaintiff.

Mr. Houston meets Mr. Collins, Mr. Tapely and Mr. Murray at accident site

26. Two days after the accident, Mr. Collins met Mr. Houston at the scene of the accident along with Mr. Brian Tapely and Mr. John Murray. Mr. Brian Tapely is an engineer with the ESB and at the time of the accident he was area manager for that part of Kerry, which included Cahersiveen. Mr. Murray was a Safety and Technical Services Supervisor with the ESB at that time.

27. Mr. Collins gave evidence that Mr. Houston pointed out the three sections of the tree that he had cut (the "Felled Tree") and the stump which was approximately at the midway point up the lane. Mr. Collins gave evidence that he carefully re-assembled the tree and measured the tree and the stump which came to a length of 11 metres. The engineering evidence was that a tree of 11 metres on the bank was of sufficient height to make contact with the electricity wires if it fell. Mr. Collins also recalls burn marks on the tree and that the Felled Tree was consistent in height with the height of the line of trees on the bank, contrary to Mr. Houston's claim that all the trees on the bank were six metres in height.

28. It was his view that the skid or scrape marks along the bark of the Felled Tree were consistent with the falling of that tree on the wire. He did not accept that these scrape marks could have been caused by the wire coming into contact with the tree on the ground as it recoiled up the lane after a unilateral fracturing of the wire, since in his view to cause this degree of scraping would have required a tree (which Mr. Byrne, the expert engineer employed by ESB, estimated could have a weight of between 50 and 100 kg) falling against tense wire before it fractured.

29. Mr. Tapely was a convincing witness and he was of the view that the scrape marks on the tree were caused by the weight of the tree as it moved along the wire as it fell. He also gave evidence that Mr. Houston pointed out the three pieces of the tree to him, which was measured at 11 metres and that photographs were taken of the re-assembled tree and that they had shown Mr. Houston the re-assembled tree that they had measured.

30. Mr. Tapely's evidence was as follows regarding his discussion with Mr. Houston two days after the accident:

"When I spoke to him he told me that Ms. Penny Stewart and Mr. Batt O'Shea were holding the blue rope and pulling the blue rope. He told me that he was cutting or had been cutting a tree and that they were trying to pull the rope to direct the fall of the tree. He told me that the tree fell into the power line. He told me that there was a blue flash up on the power line. He told me there was a blue flash along the boherenn and all that went into my report. I didn't speak to the other two witnesses to corroborate that, but that's what he told me."

31. This evidence is also consistent with the accident report which Mr. Tapely prepared and is dated 24th November, 2005, within a few weeks of the accident, Both his oral evidence and his written report are also consistent with the computer records of the ESB of the accident. The computer read-outs of the incident taken at the local sub-station and the control centre in Cork indicated that there was a short circuit caused by the outer and middle wire making contact (as was clear from the sudden change in flow of electricity at the relevant time in those wires), followed by an earthing (which occurs when the middle wire hits the ground and its flow of electricity reverts to zero) followed by a shut off of the electricity in all three wires as a safety precaution. Mr. Collins' evidence was that such a short circuit could not occur without some external interference, such as a tree touching one wire and forcing it into contact with another wire. This leads to a short circuit which the computer records show happened first. Then, next in time is the earthing, which is when the fractured wire touches the ground, which is consistent with those computer records.

32. In this regard, expert evidence was given by an electrical engineer, Mr. Kevin O'Connor who indicated that if a wire fractured unilaterally it is of such weight, and because of the forces of gravity, that it would fall vertically to the ground and would not make contact with the outside wires which are 0.75 metre from the middle wire. On this basis, a short circuit was highly unlikely if there had been a unilateral fracturing of the wire in his view.

33. Like Mr. Collins, Mr. Tapeely also gave evidence that the line of trees on the lane when he visited two days after the accident were tall enough for a felled tree to fall on the electricity wires, contrary to Mr. Houston's evidence.

34. Mr. Tapely also gave evidence that Mr. Murray used binoculars to examine the other two wires at the mid-way point along the lane roughly opposite the stump of the Felled Tree and he noticed some bubbling on the wire closest to the trees. Mr. Tapely also gave evidence that there were burn marks on the Felled Tree and he pointed to such marks in photographs which were taken by him when he visited the accident site in 2005. Accordingly, the following week Mr. Collins arranged for a two metre section of wire at this mid way location to be replaced and the replaced wire had evidence of bubbling caused by extreme heat which Mr. Collins indicated was consistent with the two wires touching each other leading to a short circuit. This was consistent he said with a tree causing the outer wire to come in contact with the middle wire.

35. As regards the suggestion on behalf of the plaintiff that the wire had unilaterally fractured, without any contact from the Felled Tree, Mr. Collins gave evidence that these were copper wires that had been installed two years previously and that they had a minimum lifespan of 40 years and that he had no experience of copper wires spontaneously breaking. Mr. Tapely also gave evidence that he had never heard of, or come across, spontaneous fracturing of such wires without outside interference.

36. Mr. Collins also gave evidence that anyone cutting down trees within the vicinity of electricity wires should have contacted the ESB to switch off the electricity as this was the only way of dealing with this risk.

37. Mr. Murray was also a convincing witness and he gave evidence that Mr. Houston told him that he attached the rope to the trees in order to pull the Felled Tree parallel to the tree line (and thus also parallel to the electricity wires) and that as the tree was being pulled, there was a huge flash. This contradicts Mr. Houston's account that there was about a minute time-lag between the pulling of the tree and the flash.

38. Mr. James O'Connell is the Timber Clerk of Works employed by the ESB before and since the accident and so he has extensive

experience of trees growing close to electricity wires. He gave evidence that based on his experience of trees falling against electricity wires, the scrape marks on the Felled Tree were consistent with the type of scraping marks on trees that hit wires.

Expert evidence

39. In addition to employees of ESB, expert evidence was provided on behalf of Ms. Stewart and the ESB.

40. Mr. Tony O'Connor is an independent electrical engineer on behalf of the ESB and his evidence was that the wire in question was copper wire which has a minimum life of 40 years and in some instances lasts 80 years. Evidence was provided to the Court that the wire in question had only been installed on the site two years previously. He also provided evidence that there are 10,000 kilometres of electricity wire in Ireland and he stated that there is no evidence of copper wire spontaneously fracturing.

41. Mr. Michael Byrne was the civil engineer on behalf of the ESB and his evidence was that he had never investigated anything as dangerous as the accident in this case. This was because he stated that Mr. Houston was working on a bank without proper equipment (e.g. he did not have a felling bar to control the direction of the fall of the tree), he was not a qualified tree surgeon and he had untrained personnel (Ms. Stewart and Mr. O'Shea) in the fall zone of the tree, all of this when, based on the evidence of the ESB personnel, the trees at the relevant time were of sufficient height to touch the electricity wires if they fell towards the electricity lines (and when he visited the site in 2010 the trees were of a sufficient height to touch the wires if they fell). He also gave evidence that Mr. Houston, as someone cutting trees in the vicinity of electricity wires should have contacted the ESB to have the supply turned off.

42. Mr. Frank Curran was the engineer engaged by the plaintiff and he bases his conclusion that the Felled Tree did not make contact with the electricity wires on the height of the trees in 2015 when he visited the site and when all the trees were six metres in height. However the height of the trees in 2015 is of limited relevance to an accident that occurred 10 years previously. In further support of his conclusion he relies on a statement of Mr. O'Connell, the ESB Timber Clerk, that he had topped the trees before the accident occurred. However, this statement does not in fact state that Mr. O'Connell topped the trees. It states that "two meters minimum radial clearance" from the electricity line was applied when he cut the trees in 2003. This has no relevance to the height of the trees, but rather is the size of the clearance between the trees and the wires. Accordingly, this Court would treat with caution the conclusion reached by Mr. Curran in his report since trees could be 11 metres in height and still comply with the two metres minimum radial clearance.

Conclusion

43. This Court concludes on the basis of the foregoing evidence that the probability of the electricity wire fracturing spontaneously is very low. The probability of this happening at the exact same time as trees were being cut in the vicinity of the electricity wires (an operation which one expert engineer described as one of the most dangerous things he has ever come across) is even lower again.

44. For this reason and based on the convincing nature of the evidence provided by the employees of the ESB who met with Mr. Houston two days after the accident, the expert evidence provided on behalf of ESB and the inconsistencies in Mr. Houston's evidence, this Court concludes that on the balance of probabilities the electrocution was caused by the Felled Tree striking the wires and so the plaintiff has failed to convince this Court that on the balance of probabilities, the accident occurred as she alleges and so this Court must dismiss her claim.