Neutral Citation Number: [2026] EWHC 2953 (IPEC)

Case No: IP-2024-000131

IN THE HIGH COURT OF JUSTICE
BUSINESS AND PROPERTY DIVISION
INTELLECTUAL PROPERTY ENTERPRISE COURT

Royal Courts of Justice, Rolls Building
Fetter Lane, London, EC4A 1NL

Date: 18 November 2026

Before :

HIS HONOUR JUDGE HACON

- -

Between :

E.I. TECHNOLOGY UNLIMITED COMPANY (A company incorporated under the laws of the Republic of Ireland)	**Claimant**
- and -	
HISPEC ELECTRICAL PRODUCTS LIMITED	**Defendant**

- -
- -

RICHARD DAVIS KC (instructed by **Browne Jacobson LLP**) for the **Claimant**
HUGO CUDDIGAN KC and **MITCHELL BEEBE** (instructed by **Gowling WLG (UK) LLP**) for the **Defendant**

Hearing dates: 6-7 October 2026

- -

Approved Judgment

This judgment was handed down remotely at 10.30am on 18 November 2026 by circulation to the parties or their representatives by e-mail and by release to the National Archives.

.....

HIS HONOUR JUDGE HACON

Judge Hacon :

Introduction

1. This action began as an allegation by the claimant ('EIT') that the defendant ('Hispec') has infringed European Patent (UK) No. 1 906 371 B1 ('the Patent') and a counterclaim by Hispec alleging that the Patent is invalid. Hispec also sought a declaration that products complained of do not infringe the Patent.

2. Some matters have fallen away. Hispec now admits that its relevant products fall within the claims of the Patent. The principal issues remaining are whether the Patent is invalid due to lack of novelty or lack of inventive step. Hispec also raised issues of estoppel by representation and abuse of process, though at the trial estoppel was not pursued.

3. The title of the invention is 'Control of alarm devices'. The products claimed are alarm systems which respond to the detection of smoke, heat or carbon monoxide. For simplicity I will mainly consider smoke alarms.

4. Richard Davis KC appeared for EIT, Hugo Cuddigan KC and Mitchell Beebe for Hispec.

The Patent

5. Buildings often have multiple alarms installed in them, the alarms connected to each other by one or more interconnect wires ('IC wires'). The Patent indicates in its discussion of the prior art that users wish to have control facilities for their systems, including the ability to test the system regularly (the 'test function'), to silence the alarms if there is no emergency (the 'hush function') and to locate the alarm that has detected the smoke by causing all other alarms to be temporarily silenced (the 'location function').

6. A further function, temporarily suppressing beeps which signal that a battery is running low, is also mentioned in the Patent but was not discussed during the trial.

7. The Patent states that prior art systems have an IC wire that allows an activated, sounding alarm to cause all the other alarms in the system to sound. A separate wire is used for the test, hush and location functions. The invention relates to the multiple use of a single IC wire connecting a remote control unit ('RCU') to each of the alarm devices in the system. As well as performing the conventional purpose of transmitting a signal from an activated alarm to all the others, causing them all to sound, the IC wire will allow the test, hush or location functions to be performed whenever the user so instigates by pressing a switch on the RCU.

8. An advantage of the invention is that existing systems with a single IC wire network running throughout the building can be upgraded by replacing the existing alarm devices and installing an RCU, without having to replace the installed IC wire network.

9. An example of how the patented system works is described. The embodiment has two switches on the RCU. One is a test/hush switch, the other a locate switch. The current used in the system comes from the mains via capacitors, a power-limiting resistor and diodes to convert the 230 volts AC current to DC signals of a much lower voltage. The interconnect function between the alarm devices via the IC wire operates at a constant voltage range between 4 and 11V. When the test/hush button is pressed by the user, a 15V current is generated. If the alarm is off, this causes the test function to operate. Assuming the system is operating as it should, the alarm devices will sound for a limited period. If they are already sounding because smoke has been detected, the hush function is engaged: the 15V signal causes the alarm devices to be silenced for 10 minutes after which the system returns to its standby state, allowing the alarm devices to sound if smoke is detected.

10. If the user presses the locate button on the RCU when the alarms are sounding, the IC line is 'pulled to ground', i.e. the voltage is reduced to zero. This causes all the alarm devices except the one which detected the smoke to be silenced so that the source of the smoke can be more easily located.

The claims

11. EIT identifies three claims as having independent validity: claims 1, 5 and 13. Claim 1 is here divided into the integers used by the parties (the 'A's after 1.1 and 1.3 are apparently there just to identify integers that concern alarm devices):

> *1.0 An alarm system comprising*
>
> *1.1A a plurality of alarm devices interconnected by an interconnect wire (IC) and each having an environmental condition sensor and a control circuit,*
>
> *1.2 and a remote control unit, wherein the remote control unit comprises means for modulating remote control signals on the interconnect wire (IC) linking the alarm devices,*
>
> *1.3A and each alarm device control circuit comprises means for performing operations in response to said signals,*
>
> *1.4 wherein the remote control unit comprises a switch and a circuit for operating in response to a user input to short the interconnect wire (IC) to a low voltage, so that interconnection signalling between the alarm devices is prevented and only a device sensing an alarm condition sounds;*
>
> *1.5 wherein the circuit applies a turn-on voltage to a transistor to link the interconnect wire to ground when the switch is pressed; characterised in that*
>
> *1.6 said turn-on voltage is applied by a capacitor and the circuit is adapted to charge said capacitor from the interconnect line when it is high due to some smoke alarm being in alarm.*

12. Integers 1.1A to 1.3A set out general elements. Integers 1.4 to 1.6, and thus claim 1 as a whole, are concerned only with the locate function.

13. Claim 5 is dependent on claims 2-4. In claim 2 the RCU comprises 'means for modulating remote control signals according to voltage level', in other words using different voltage levels to distinguish different signals as transmitted to the alarm devices.

14. In claim 3, the RCU of claim 2 applies to the IC wire a higher voltage level than that used for the interconnect signals.

15. Claim 4 builds on claim 3 by requiring a switch on the RCU for causing the high-voltage signal to be delivered on the IC wire.

16. Claim 5 adds that the high voltage is derived from the mains supply.

17. Claims 12 and 13 are concerned with the interaction between the test/hush and locate functions.

The witnesses

18. EIT provided evidence of fact from Eric Duignan, EIT's Group Commercial Manager, which was not challenged. Hispec's witness of fact was Neil Kilgallon, Hispec's Finance Director. His evidence was brief and clearly given.

19. EIT's expert was Neil Woodward. Mr Woodward has worked in the fire safety industry for over 40 years in various capacities. He has held roles in industry trade bodies and is currently on the Fire Detection and Alarms Council. Since 2006 Mr Woodward has run his own consultancy advising manufacturers of fire and security systems.

20. James Parker, Hispec's expert, is a consultant at a Canadian company he founded, Parker Security Consulting Inc., which advises in the field of electronics, including alarm systems. He has worked in that field since 1983, including time as Head of Engineering at Digital Security Controls Limited ('DSC'), then Vice President of Engineering when DSC was acquired by Tyco Safety Products.

21. Both experts were good witnesses, giving clear answers and making appropriate concessions where necessary. It became apparent that Mr Parker's written evidence was not prepared with as much care as it might have been, which was probably not his fault, or at least not his alone, and I do not believe that the errors, such as they were, indicated an intention to mislead the court.

The skilled person

22. The parties agreed that the skilled person is an electronics engineer with experience in the design and manufacture of alarm devices and systems, in particular those warning of the presence of a potentially dangerous source of heat, smoke or carbon monoxide.

23. At the start of the trial EIT contended that the skilled person's experience would be limited to domestic systems only, supported by the evidence of Mr Woodward. Hispec's expert, Mr Parker, said that there was no clear distinction between domestic and commercial markets for alarm systems. At the trial Mr Woodward confirmed Mr Parker's view. It seems that there is a significant overlap and that one sector blurs into the other. There are systems used in some larger domestic properties that have the characteristics of those found in commercial buildings. Moreover, the claim is not limited to either domestic or commercial alarm systems.

24. I find that the skilled person would have knowledge and/or experience of the design and manufacture of alarm systems, both domestic and commercial.

The common general knowledge

25. Mr Parker's report suggested that the common general knowledge (CGK) of the skilled person extended more widely than did Mr Woodward's report. In cross-examination Mr Woodward accepted that there would have been a broader scope in respect of several aspects of the CGK. For that reason I will mainly refer to Mr Woodward's evidence on the CGK, most of it given in cross-examination.

26. The CGK of the skilled person would have covered both commercial and domestic systems.

The British Standards

27. It was agreed that among the matters that would have been part of the skilled person's common general knowledge (CGK) was the existence of and the main requirements set out in British Standards that apply to alarm systems. Those identified were BS EN 14604:2005 ('BS 14604') which specifies the requirements for smoke alarms, its predecessor BS 5446:2000 ('BS 5446') which specifies the requirements of fire detection and alarm systems in dwellings and BS 5839-6:2004 ('BS 5839') which sets out a code of practice for the design, installation and maintenance of fire detection and alarm systems in dwellings. To the extent that the skilled person would not have remembered details of the contents of those British Standards and felt the need to do so, he or she would have looked them up. Mr Woodward's evidence in cross-examination was that the skilled person would have known BS 5839 'inside out' and would have treated it as a bible in terms of developing an alarm system. The standard is about 50 pages long and I doubt that Mr Woodward meant that the skilled person would have had it memorised word for word. The way it was put in Mr Woodward's report was that the general requirements set out in the standard would have been part of the skilled person's CGK. He did not expressly say the same about recommendations being part of the CGK but if the skilled person knew BS 5839 inside out, I think it must follow that the general recommendations in the standard were within the CGK.

28. Mr Parker said that he was not familiar with BS 14606, so I am not satisfied that the principles of this standard would have been part of the CGK, although it would have been consulted if the skilled person had need to.

29. BS 5839 grades fire alarm systems from A to F. Grade A are the most sophisticated commercial systems, Grade F are simple battery powered systems. Most of the requirements of Grade A systems are outside the scope of BS 5839 but the requirements of Grades B to F are specified in that standard. Attention was largely focussed on Grade D, mains-powered smoke alarms, each with a battery as a standby, and Grade C, a mains-powered system of fire detectors and alarms sounders that may also serve as smoke alarms, each connected to central control equipment.

30. This is one of the recommendations of BS 5839:

> 'c) All systems, other than Grade A systems, should be tested at least every week by operating all fire alarm devices in the dwelling. In the case of smoke alarms and any heat alarms, the weekly test may be carried out by use of a test button on each of the smoke alarms and heat alarms installed in the building.
>
> NOTE In some Grade D and E systems, a manual test switch (which can take the form of a manual call point) can be added to the system to permit routine testing without the need to access test controls on the smoke or heat alarms themselves.'

31. The note was taken to refer to a remote manual test switch. There are two types of test. The first only tests whether the components of the system are connected and that the sounder works (an 'alarm sounder test'). The second involves some means of simulating the presence of the environmental condition to be detected – smoke, heat or carbon monoxide – and checking whether the alarm system responds appropriately. The latter is known as a 'chamber test'. Mr Woodward said that the testing recommended by BS 5839, including testing using a remote test switch, was a chamber test.

32. BS 5839 also recommends what it calls 'silencing' signals, referred to at the trial as a 'hush' instruction, operated when an event like burnt toast sets off an alarm even though there is no fire. The principal recommended means of operating a hush instruction requires that occupiers of the building should be able to do this at floor level. Mr Woodward confirmed that where the alarms are out of reach on or near the ceiling, this will necessarily require a remote hush switch at ground level. In the case of a Grade C system, he said that the central control panel must have a hush switch, a pair of indicator lights and a buzzer for a low battery. This requirement would have been within the CGK.

33. It was not suggested by EIT that there was any technical reason why a Grade D system should not have an RCU with a hush switch or, for that matter a test or locate switch. Given that the concept of switches on an RCU was certainly known and the likelihood that the skilled person would have read the recommendations of BS 5839, I think that the concept of switches on an RCU in a Grade C or D system to enable a test, hush or locate function would have been part of the skilled person's CGK.

34. EIT contended that the skilled person would not have looked at the standards to see whether this or that feature was to be incorporated as part of a project to

modify either of the cited prior art systems. Rather, they would only have looked at the standards to see whether the finally designed system complied. I disagree. In designing a system by way of a modification of a prior art system, the skilled person would have had in mind the CGK contents of the standards – that knowledge would not have been blanked out. Hispec's point, with which I agree, was that the CGK recommendations in the standards would have offered options that the skilled person would have contemplated.

35. If something other than CGK prompted the skilled person to consider a feature for inclusion in a system, that idea would have been checked with the standards for compliance.

Analogue voltage communication signals

36. The experts agreed that the CGK of the skilled person included the technique of distinguishing between types of electronic signal sent between two parts of a system by according a particular voltage band to each signal, provided that the voltage bands were sufficiently distinct, one from the other. Mr Woodward said that this principle was 'as old as the hills'. He also agreed that the skilled person would have known as part of their CGK that this was possible along a single wire.

Market Survey

37. Hispec contended that a skilled person undertaking the task of designing a new alarm system, including one that takes the form of an improvement on a prior art system, would review alarm systems on the market, particularly those which had proved to be commercially successful, and would be encouraged to incorporate features found in those systems that by inference had appealed to customers. Hispec called this a 'market survey'.

38. It seems to me that as a matter of law this is potentially a sound argument, although each case will depend on its facts.

39. It may be that a market survey of that type would turn up products or features that do not form part of the CGK, correctly identified. I think it makes no difference. The skilled person is taken to have known information which he or she would routinely have found by consulting a familiar source when prompted to do so by the task in hand (see *Bourns Inc v Raychem Corp* [1998] RPC 31, at 40; *Generics (UK) Ltd v Daiichi Pharmaceutical Co Ltd* [2009] EWCA Civ 646, at [25] and *KCI Licensing Inc v Smith & Nephew plc* [2010] EWCA Civ 1260, at [6]). This would include information derived from products on the market at the priority date where such information would have been readily available to the skilled person and is information that the skilled person would have had reason to consider. Though not completely clear, it seems that a similar view was taken by Henry Carr J in *Garmin (Europe) Ltd v Koninklijke Philips N.V.* [2019] EWHC (Ch) 107, at [100]-[101].

40. Mr Woodward agreed that a market survey carried out by the skilled person of this case would have turned up 'A Guide to Residential Fire Detection, With Reference to BS 5839: Pt.6: 2004' ('the EI Guide') published by Aico Ltd t/a

Ei Professional, the market leader in fire alarm systems. The EI Guide shows Grade D systems.

41. Mr Woodward said that the skilled person would have been encouraged by the EI Guide to include certain features into a fire alarm system. This was in response to questions generally prefaced by the proposition that the skilled person was designing an alarm system with a blank sheet of paper. EIT argued that Mr Woodward's answers were valueless because the hypotheses to be considered were by reference to the design of an alarm system starting with the information provided by each of the cited items of prior art, not starting with a blank sheet, i.e. nothing more than the CGK. I disagree, with a qualification. The skilled person would have taken on board the information provided by the market survey. To the extent that a feature of an alarm system was shown to be probably commercially attractive and was compatible with the cited prior art system, the skilled person would have been encouraged to incorporate that feature. If incompatible, or if its incorporation would have required more than routine adaptation of the prior art system and/or more than routine testing, the feature should be treated as having been rejected by the skilled person.

The alarm system features taught by the British Standards and the market survey

42. Mr Woodward said that with the British Standards in mind, the skilled person would have been encouraged by the EI Guide to include the following features in an improved alarm system, where not already featured in the prior art. None was incompatible with the systems disclosed by the cited prior art. First, the skilled person would have been incentivised to design a 3-wire Grade D system, with two of the wires used for the mains power and the third for signal transmission, the IC wire. Secondly, he or she would have wished to include a remote panel with switches for test, hush and/or locate functions; the functions would be activated via the IC wire. Thirdly, this would have meant that up to four different signals, when each is generated, would be sent along the IC wire: alarm, test, hush and locate. Fourthly, the signals could be transmitted by using distinct voltage bands.

Construction

Remote control unit

43. There was a dispute about the construction of 'remote control unit' as used in claim 1. Hispec argued that the term includes an alarm device with a locate button on the device, as opposed to being on a separate control unit. In my view it does not, for two reasons. First, it would deprive the word 'remote' of any meaning. Secondly, on a straightforward reading of claim 1 the alarm devices and the RCU are distinct items. I was shown nothing in the description of the Patent which indicates that they are not.

Modulating

44. Claim 1 speaks of the RCU comprising means for 'modulating' remote control signals on the IC wire. EIT argued that modulating means producing, consequently it must be the RCU which produces the signals. If the signals

come from another source, EIT continued, the system will not fall within the claim. In practice, for the RCU to modulate, or produce, two signals, two switches on the RCU will be required.

45. EIT had a related argument. The requirement that the RCU produces signals (plural) means that it must be capable of producing more than one type of signal, each employing a different voltage.

46. EIT's construction does not accord with what either expert said. Mr Woodward said that 'modulating' is a term of art, used to mean varying one or more properties of a carrier in order to encode information. Mr Parker agreed and gave the example of a radio wave having a carrier frequency that is varied, or modulated, by changing amplitude (AM) or frequency (FM) to encode a radio broadcast.

47. I accept that evidence regarding the usual use of 'modulating' as the skilled person would have understood the term. It does not provide an exact fit with claim 1 since there is no equivalent to the carrier, so the signals of claim 1 are not encoded by varying the properties of a carrier. But it does not stretch the usual meaning of 'modulating' very far if the term is interpreted to mean varying, in this context varying signals by varying the voltage. Thus, the RCU 'comprising means for modulating remote control signals' on the IC wire means that the RCU must have means for causing the voltage on the IC wire to vary and thereby to convey signals from the RCU via the IC wire. This is also consistent with the uses of 'modulation', 'modulating' and 'modulated' in paragraphs [0004], [0007] and [0032] of the description:

> '[0004] … Document US 5 705 979 discloses an alarm system where alarm devices can be centrally controlled by means of voltage modulation over an interconnect wire.'
>
> '[0007] In one embodiment, the remote control unit comprises means for modulating remote control signals according to voltage level.'
>
> '[0032] … Also, in an alternative embodiment signals may be modulated with frequency or pulsing control rather than intensity levels as described above.'

48. I further take the view that the use of signals (plural) in claim 1 should be given its most natural meaning. It means two or more signals separated in time, but which may or may not be the same signal. This includes a signal conveyed by bringing the IC wire down to ground, zero voltage. EIT did not refer to any passage in the description which indicates otherwise.

49. It was put to Mr Woodward that 'modulating' signals also includes varying the rate of change from one voltage level to another. He accepted that this could be the case in the context of claim 1.

The Prior Art

The Ei 159 System

50. Hispec relied on the prior use of a system marketed by EIT comprising an Ei 159 unit in the form of a smoke alarm locator switch and two or more Ei156TLH alarm devices, together referred to as the 'Ei 159 System'. Hispec served a product description, accepted as being sufficiently detailed and accurate. It was common ground that the Ei159 System was made available to the public before the priority date of the Patent. It has since been discontinued.

51. The Ei 159 System used a three-wire arrangement: two supplying mains power to the alarm devices and an IC wire. When an alarm device detected smoke, it sounded and placed a voltage on the IC wire, about 4V. The voltage caused other alarm devices, connected via the IC wire, to sound. There was a remote locator switch. If, while the alarms were sounding, the locator switch was pressed, the IC wire would become connected to the neutral wire in the AC supply with the result that the voltage in the IC wire fell to zero. That caused all alarm devices, save for the one detecting smoke, to be silenced. The alarm devices each had a test/hush button. When no alarm was sounding, pressing the test/hush button would put 4V on the IC wire. Provided that all was working as it should, all alarms would sound. If an alarm device was in alarm mode, pressing its test/hush button would cause the device to stop sounding and would remove the 4V from the IC wire, causing all other alarm devices to hush.

Kaiser

52. The second cited item of prior art is PCT Application No. WO 2006/044358 A2 ('Kaiser'). The title of the invention is 'Circuit and method for prioritization of hazardous condition messages for interconnected hazardous condition detectors'. The product described is a digital device, as opposed to the analogue functioning of the invention claimed in the Patent.

53. Kaiser discloses a circuit for connecting alarm devices. It is a three-wire system with two wires connected to the mains supply and one IC wire. Kaiser envisages that the alarm devices will give off different alarms depending on whether smoke or carbon monoxide is detected. This is achieved by using two different signals, being different voltages generated on the IC wire.

54. The prioritisation of the title has two aspects. One is to give priority to the detection of a greater hazard, smoke, over detecting a lesser hazard, carbon monoxide.

55. The second aspect is to prioritise the alarm device which has detected the hazard over the other alarm devices by allowing the user to silence all but the device which has detected the hazard, i.e. a locate function. Kaiser calls this a 'hush' function but to avoid confusion I will use the term 'locate'. The locate function works by grounding the IC wire when the function is activated.

56. There is no express mention of an RCU or of any function other than a locate function.

Abuse of process

57. Paragraph [0004] of the Patent includes this:

> 'Document WO 2006 044 358 [Kaiser] discloses an alarm system according to the preamble of claim 1.'

58. It was not in dispute that the preamble is to be given its usual meaning, namely the part of claim 1 which precedes the characterising portion. So the skilled person reading the Patent would have been told that integers 1.0 to 1.5 of claim 1 are all disclosed in Kaiser.

59. A validity claim chart was served by Hispec in which it was said that each of integers 1.0 to 1.5 is disclosed in Kaiser, identifying relevant passages of Kaiser, and that integer 1.6 (the characterising portion of the claim) is obvious over Kaiser. In its response EIT denied that Kaiser discloses integers 1.1A, 1.4 or 1.5 and further said that whether integer 1.2 is disclosed would be a matter for expert evidence. EIT denied that integer 1.6 is obvious over Kaiser.

60. Hispec contends that the foregoing assertions by EIT in relation to integers 1.1A, 1.2, 1.4 and 1.5 constitute an abuse of process given what the Patent says in its paragraph [0004].

61. The background to the statement in paragraph [0004] of the Patent is as follows.

62. On 12 July 2011, before the Patent was granted, the Examining Division of the EPO wrote to EIT saying 'the Examining Division intends to grant a European patent on the basis of [EIT's application] with the text and drawings as indicated below'. The letter stated the Division's view that 'The closest prior art is… [Kaiser]', setting out what the Examining Division considered to be the disclosure of Kaiser (here with passages underlined which reflect integers 1.1A, 1.2, 1.4 and 1.5 of claim 1 of the Patent):

> '[Kaiser] discloses … an alarm system comprising a plurality of alarm devices (par. 0002; Figs. 2,3) interconnected by an interconnect wire (400, Fig. 4) and each having an environmental condition sensor and a control circuit (implicit and unavoidable), and a remote control unit (interface circuitry, par. 0018), wherein the remote control unit (interface circuitry) comprises means (See Fig. 4) for modulating remote control signals on the interconnect wire linking the alarm devices, and each alarm device control circuit comprises means for performing operations in response to said signals (par. 0017), wherein the remote control unit comprises a switch (par. 0018, par. 0053, 0054, uP3) and a circuit for operating in response to a user input to short the interconnect wire to a low voltage (par. 0020), so that interconnection signalling between the alarm devices is prevented and only a device sensing an alarm condition sounds (par.0018); wherein the circuit applies a turn-on voltage to a transistor (422, Fig 4) to link the interconnect wire to ground when the switch is pressed (par. 0054);'

63. The Examining Division proposed amendments to the description and the claims of EIT's application, including the text of what is now [0004] of the Patent. The Division invited EIT to elect between one of two courses: either to

approve the text which the Examining Division had said was acceptable and pay the fees for grant, in which case the Patent would be granted. Alternatively, '[i]f you do not approve the text intended for grant but wish to request amendments or corrections, the procedure described in Rule 71(4) EPC is to be followed.' The consequence of adopting the latter procedure would have been that the examination proceedings continued.

64. On 31 August 2011 EIT wrote in response. No objection was taken to the Examining Division's view of what Kaiser discloses. EIT informed the Division 'The description and drawings are hereby approved' and requested that the Patent be granted. On 22 September 2011 the Examining Division stated that the Patent had been granted.

The law

65. The parties were agreed that the decisions of the Enlarged Board of Appeal of the European Patent Office in decisions G1/24 and G1/25 have no bearing on the facts of this case.

66. I was referred to the judgment of Millett LJ in *Gerber Garment Technology Inc v Lectra Systems Ltd* [1995] FSR 492. The case concerned cutting machines used to cut multiple layers of fabric for use in the garment industry. The specification of one of the patents in suit acknowledged that the use of a bristle bed (a type of specialised cutting surface) was known at the priority date. At the trial the patentee resiled from this and was allowed by the judge at first instance to lead evidence that such use was not known. The defendants appealed that ruling. Millett LJ (with whom Leggatt and Morritt LJJ agreed) said (at 493-494):

> 'The question is: what is the effect of a recital of the prior art in a patent? Is the patentee bound by it, or may he resile from it and lead evidence to contradict it? In *Chapman and Cook, and Lectro Linx Ltd v. Deltavis Ltd*, (1930), 47 R.P.C. 163 Clauson J. held at p. 173 that the patentee had "recited himself out of court" and was, in effect, estopped from claiming a monopoly in something which he recognised not to be novel. In *Sonotone Corporation v. Multitone Electric Co. Ltd* (1955) 72 R.P.C. 131, at 140 however, Sir Raymond Evershed M.R., speaking obiter, expressed the view that such a recital constituted an admission which must necessarily carry great weight, but that it did not estop the patentee or debar him from leading evidence to contradict it.
>
> In my judgment this is a correct statement of the law. It would be contrary to all principles to hold a party to be estopped as against another party by an erroneous statement on which that other party has not relied. The respondents do not suggest that they have relied upon the recital either by infringing or by abstaining from infringing.'

67. EIT relied on the statement of the law approved in *Gerber*, arguing that it was not bound by the erroneous statement in paragraph [0004] of the Patent under the law of estoppel and therefore resiling from the statement could not be an abuse.

68. Millett LJ's judgment continued:

> '[The respondents] submit that a patentee should not be allowed to resile from a clear and unambiguous statement in the body of his specification as a matter of common fairness to the public, who must be able to rely on the information provided by the patentee in the specification in order to assess the validity of the patent.
>
> For my part I would accept the submission if it related to a representation by means of which the patent was obtained, or to one which might have led the public to conclude that the validity of the patent could not be successfully challenged. But in the present case the representation was not of either character. It suggested, if anything, that the patent might be invalid. The patent was granted in spite of it, not because of it. It could not have induced competitors to abstain from infringement. It might have constituted a trap, and led them to infringe or apply for revocation of the patent; and if they could satisfy the Court that they had done so in reliance on the recital in the patent, then on ordinary principles the patentee might well be estopped from resiling from the recital. Even in such a case, I would expect the patentee to be able to determine the effect of the recital for the future by amending the patent to delete the erroneous recital.'

69. Hispec placed emphasis on Millett LJ's acceptance of the proposition that a patentee should not be allowed to resile from a clear and unambiguous statement in a patent specification as a matter of common fairness to the public, who must be entitled to rely on what is said in a specification when assessing the validity of the patent where the patent had been obtained by means of the representation, or alternatively where the representation might have influenced the public's assessment of the patent's validity.

70. I respectfully agree with that proposition, although Millett LJ was considering the matter through the lens of the law of estoppel, not abuse of process.

71. Hispec argued that abuse of process is a flexible concept. In *Lay v Independent Vetcare Ltd* [2026] EWCA Civ 1027 the claimants contended that the defendant had pleaded a case that was irreconcilable with, and contrary to, the position it advanced in separate proceedings. The claimants submitted that to allow the defendant to do this would be contrary to the principle against approbating and reprobating and/or was an abuse of process and/or was precluded by judicial proceedings estoppel. Lady Justice Andrews reviewed the law:

> '[21] The authorities were addressed by the Judge at [43] to [54] of his judgment, and Mr Tozzi KC on behalf of IVL said he did not take issue with his summary of the law. Although Mr Béar KC spent some time taking us through the cases, there appeared to be no controversy about the principle that they establish nor about the approach to be taken by the court in determining whether it applies. Various different labels have been applied to the principle: "judicial estoppel" in the United States of America; "estoppel by conduct" or "the rule against approbation and reprobation" in this jurisdiction, but the principle is the same. One of the

clearest expositions is to be found in the judgment of Sir Christopher Floyd in *LA Micro Group (UK) Ltd v LA Micro Group Inc and others* [2021] EWCA Civ 1429; [2022] 1 WLR 336 at [18] to [26]. He began by quoting the well-known dictum of Viscount Radcliffe in *Kok Hoong v Leong Cheong Kweng Mines Ltd* [1964] AC 993 at p.1018:

> "a litigant may be shown to have acted positively in the face of the court, making an election and procuring from it an order affecting others apart from himself, in such circumstances that the court has no option but to hold him to his conduct and refuse to start again on the basis that he has abandoned."

[22] After considering how this principle was applied in subsequent cases, including by the US Supreme Court in *New Hampshire v Maine* [2001] 532 US 742, which he confirmed reflected the law in England as well as in the United States, Sir Christopher said this at [26]:

> "It is clear, therefore, that this form of estoppel by conduct is one which is approached by means of a broad, merits-based assessment, and is not constrained by strict rules (as for example, issue estoppel). The matters to consider include, but are not limited to, those enumerated by Ginsburg J in the *New Hampshire* case. It is material to ask the question whether it is apparent that the earlier decision was obtained on the footing of, or because of, the stance taken by the party in the earlier proceedings. Absent that factor, whilst the change of position may affect the credibility of the party or the witness concerned, there will not be an impression that one or other court was misled into giving its decision, so that the administration of justice risks being brought into disrepute."

[23] The *New Hampshire* case concerned a decree of George II in 1740 which fixed the boundary between the States of Maine and New Hampshire in the "Middle of the Piscataqua River". In a dispute about lobster fishing rights in 1977, the US Supreme Court entered judgment by consent on the basis that this phrase meant "the middle of the main navigable channel". However, the consent decree only fixed the lateral marine boundary and not the inland Piscataqua River boundary. In a subsequent dispute about that boundary, New Hampshire sought to resile from its earlier position and argue on the basis of historical records that the inland river boundary ran along the Maine river shore, so that the whole river belonged to New Hampshire. The US Supreme Court unanimously held that New Hampshire could not adopt a position contrary to that which had led to the earlier judgment. The court could not interpret "Middle of the River" in the 1740 decree to mean two different things along the same boundary line without undermining the integrity of the judicial process.

[24] Justice Ruth Bader Ginsburg, who delivered the opinion of the court, adopted the description of the doctrine of "judicial estoppel" in *Davis v Wakelee* (1895) 156 US 680 at 689:

> "Where a party assumes a certain position in a legal proceeding, and succeeds in maintaining that position, he may not thereafter, simply because his interests have changed, assume a contrary position, especially if it be to the prejudice of the party who has acquiesced in the position formerly taken by him."

She also quoted from a textbook on Federal practice and procedure which stated that:

> "absent any good explanation, a party should not be allowed to gain an advantage by litigation on one theory, and then seek an inconsistent advantage by pursuing an incompatible theory."

She described the purpose of the rule as being "to protect the integrity of the judicial process by prohibiting parties from deliberately changing position according to the exigencies of the moment."

[25] Ginsburg J identified three factors which typically inform the decision whether to apply the doctrine in a particular case. First, that the party's later position must be "clearly inconsistent" with its earlier position. Secondly, whether the party had succeeded in persuading a court to accept its earlier position, so that judicial acceptance of an inconsistent position in a later proceeding would "create the perception that either the first or the second court was misled." Thirdly, whether the party seeking to assert an inconsistent position would derive an unfair advantage or impose an unfair detriment on the opposing party if not estopped. She stressed that these were not inflexible prerequisites nor an exhaustive formula for determining the applicability of judicial estoppel, but factors which "firmly tip the balance of equities in favour of barring New Hampshire's present complaint."

[26] Later in the judgment, at p.753 of the report, Ginsburg J addressed the contention of New Hampshire that the earlier consent decree had been entered into without "a searching historical inquiry into what the language ["Middle of the River"] meant." She gave that argument short shrift, saying:

> "We do not question that it may be appropriate to resist application of a judicial estoppel 'when a party's prior position was based on inadvertence or mistake'… We are unpersuaded, however, that New Hampshire's position in 1977 fairly may be regarded as a product of inadvertence or mistake."

She went on to explain that the pleadings in the earlier case showed that New Hampshire did engage in a searching historical enquiry at the time of the earlier dispute, but added that in any event "it did not lack the opportunity or incentive to locate the river boundary at Maine's shore" at that time. She pointed out that the historical materials on which New Hampshire sought to rely were no less available 25 years earlier than they were at the time of the current judgment. That passage is of some

relevance when IVL's explanation for its change of position in the present case comes to be considered.

[27] More recently, Zacaroli LJ succinctly summarised the principle and the policy underlying it in *Malik v Malik* [2024] EWCA Civ 1323; [2025] 4 All ER 409, at [63]:

> "If a party sets out to persuade the court that it holds a certain position, the court is so persuaded, and the court acts on the footing that the party holds that position, then that creates the risks of unfairness and of bringing the administration of justice into disrepute which underpin the estoppel by conduct principle, if that party subsequently adopts the opposite position. This is sufficient to demonstrate "clearly inconsistent" positions, without the need for an objectively unequivocal statement on the earlier occasion."

[28] He went on at [81] to say:

> "it is not a requirement of this kind of abuse of process or estoppel by conduct that the party deceived the court as to its intentions on the prior occasion. But in considering all the circumstances so as to consider whether the party's conduct is sufficiently abusive to preclude it from now asserting an inconsistent claim, it is relevant to enquire both what was said on the previous occasion *and with what purpose*." [Emphasis added].

[29] As the Judge in the present case recognised at [49], the appropriate degree of connection between the stance taken by the party in the earlier case and the decision taken by the court or tribunal in that case has been expressed in different ways in the authorities, some referring to the decision being obtained "on the footing of" or "on the ground of" or "because of" that stance, others asking whether it was a "material factor" in the decision (particularly where the decision involved a balancing exercise).

[30] In *Malik v Malik*, the question posed by the court was whether the earlier stance was "a reason for" the earlier order. In that case the decision reached earlier, a refusal to lift a stay on possession proceedings, required a balancing exercise. The original stance adopted by the party in occupation of the property, V, that if he remained there he would not make a claim under the doctrine of adverse possession, was clearly a factor of "some importance." It was impossible to know how the balancing exercise would have been carried out if V had reserved the right to make such a claim or indicated that he intended to do so. The Court of Appeal was not persuaded that the judge's decision to maintain the stay would inevitably have been the same in those circumstances, and therefore the appeal was allowed on grounds of abuse of process, even though the consequence of striking out the claim for adverse

> possession was that V would have to leave the property which had been his home for many years.'

72. Andrews LJ considered the judgment at first instance and the facts of the case. She reached the following conclusion:

> '[74] For those reasons, I have concluded that the volte-face by IVL was a classic example of the type of behaviour which is prohibited by the principle of estoppel by conduct, and that when all the relevant factors are taken into account, the balance of equities comes down firmly in favour of striking out the counterclaim. It would plainly be unfair to Mr and Mrs Lay to allow IVL to resile from the position it adopted to its advantage in the ET proceedings. I would therefore allow the appeal and dismiss the cross-appeal.'

73. Although, as in *Gerber*, the ruling of the Court was in terms of an estoppel, the judgment of Zacaroli LJ in *Malik v Malik*, followed in *Lay*, implies that the finding of an estoppel by conduct could alternatively be analysed as a finding of an abuse of process.

74. In *Actavis UK Ltd v Eli Lilly & Co* [2017] UKSC 48, the Supreme Court was called upon to consider whether it was legitimate to consult the prosecution file in order to interpret the meaning of words in a claim and thereby to assess the scope of protection afforded by the patent. Lord Neuberger said:

> '[87] In my judgment, it is appropriate for the UK courts to adopt a sceptical, but not absolutist, attitude to a suggestion that the contents of the prosecution file of a patent should be referred to when considering a question of interpretation or infringement, along substantially the same lines as the German and Dutch courts. It is tempting to exclude the file on the basis that anyone concerned about, or affected by, a patent should be entitled to rely on its contents without searching other records such as the prosecution file, as a matter of both principle and practicality. However, given that the contents of the file are publicly available (by virtue of art. 128 EPC 2000) and (at least according to what we were told) are unlikely to be extensive, there will be occasions when justice may fairly be said to require reference to be made to the contents of the file. However, not least in the light of the wording of art. 69 EPC 2000, which is discussed above, the circumstances in which a court can rely on the prosecution history to determine the extent of protection or scope of a patent must be limited.
>
> [88] While it would be arrogant to exclude the existence of any other circumstances, my current view is that reference to the file would only be appropriate where (i) the point at issue is truly unclear if one confines oneself to the specification and claims of the patent, and the contents of the file unambiguously resolve the point, or (ii) it would be contrary to the public interest for the contents of the file to be ignored. The first type of circumstance is, I hope, self-explanatory; the second would be exemplified by a case where the patentee had made it clear to the EPO

> that he was not seeking to contend that his patent, if granted, would extend its scope to the sort of variant which he now claims infringes.'

75. Two points emerge from that passage which have some relevance to the present case. First, anyone affected by a patent should be entitled to rely on its contents. Secondly, it is contrary to the public interest for a patentee to advance a case at trial which is inconsistent with a representation made to the patent office during prosecution.

The present case

76. While none of the foregoing authorities deal with the point raised by Hispec here, it seems to me that a contradiction between a statement made to the public in a patent specification and a subsequent position adopted by the patentee in litigation may not be in the public interest. An appropriate test for identifying when it will not be is the application of the three factors set out by Justice Ginsburg in *New Hampshire*, cited with apparent approval by the Court of Appeal in *LA Micro Group* and in *Lay* (keeping in mind Justice Ginsburg's indication that they were not intended to be either exhaustive or inflexible).

77. Adapted to the present case those three factors do apply. First, EIT's position in the present litigation is clearly inconsistent with its assertion in paragraph [0004] of the Patent. Secondly, EIT succeeded in persuading the Examining Division of the EPO of its acceptance that Kaiser discloses the matter contained in the preamble of claim 1 and an acceptance by this court that this is not the case would create the perception that either the Examining Division or this court has been misled. Thirdly, if EIT were permitted to resile from its assertion in paragraph [0004] it would derive an unfair advantage: having obtained the grant of the Patent by adopting one position before the EPO Examining Division, EIT would have the opportunity to advance an argument in support of the validity of the Patent through the adoption of an inconsistent position.

78. In my judgment, consistently with the authorities cited above, EIT's conduct can be analysed as an abuse of process. EIT is therefore barred from advancing a case which is inconsistent with its assertion in paragraph [0004] of the Patent that Kaiser discloses an alarm system according to the preamble of claim 1.

The Ei 159 System – novelty of claim 1

79. EIT submitted that the Ei 159 System fails to disclose integers 1.2 and 1.3A. The argument in respect of integer 1.2 is as follows. It is common ground that the integer requires the modulation of more than one signal. The two signals in question are those caused by the voltages at 4V and 0V. The RCU in the Ei 159 System is responsible for producing only the latter – the alarm unit is responsible for producing the 4V signal. Therefore the requirement in integer 1.2 that the RCU has means for modulating – producing – signals (plural) on the IC wire is not satisfied.

80. I do not accept the argument because it is based on a false interpretation of claim 1. I have found that 'modulating' means 'varying' in the sense described above. I have also found that two signals, each generated by the same voltage on the

IC wire, including 0V, separated in time, constitute more than one signal within the meaning of claim 1. The RCU of the Ei 159 System does vary a signal in the IC wire by causing the voltage to vary from 4V to 0V, i.e. it modulates a signal in that way. It does this on temporally separate occasions and therefore modulates signals (plural). EIT's argument confuses more than one signal with more than one type of signal.

81. Integer 1.3A requires that each alarm device has means for performing operations (plural) in response to signals transmitted on the IC wire. EIT accepted that when the locator function of the RCU of the Ei 159 System is activated and the voltage in the IC wire is reduced from 4V to 0V, that is a signal from the RCU. Each alarm device has means for stopping the alarm from sounding. EIT further accepted that stopping the alarm from sounding is an operation in response to a signal from the RCU. However, EIT argued, that is the only operation performed in response to the only signal coming from the RCU. The requirement that each alarm device has means for performing operations (plural) in response to signals (plural) from the RCU is not satisfied.

82. I reject the argument for similar reasons. As I have found, the RCU of the Ei 159 System modulates a signal each time it causes the voltage in the IC wire to fall from 4V to 0V. Each alarm device has means for performing the operation of sounding being stopped in response to that signal. That will happen every time the signal is transmitted. Therefore each alarm has means for performing operations (plural) in response to signals (plural) from the RCU.

83. Claim 1 lacks novelty over the Ei 159 System.

The Ei 159 System – inventive step

84. Hispec argued that claims 5 and 13 both lack inventive step over the Ei 159 System.

Claim 5

85. Claim 5 is dependent on claims 2 to 4, so the features of all four claims have to be considered. Taking the features together, claim 5 requires that the RCU has a switch which connects the mains supply to the IC wire, generating a signal having a voltage higher than that of the alarm interconnect signals. The purpose of the signal is not specified.

86. EIT submitted that the feature of claim 3 is not disclosed in the Ei 159 System, namely that the RCU applies to the IC wire a higher voltage than that of the alarm device interconnect signals. The alarm device interconnect signal of the Ei 159 System is 4V on the IC wire. The locate function works using a signal of 0V.

87. Mr Parker said that the skilled person would have known that it was important to have a test switch at a location easily accessed by the user. If the alarm device was out of reach near the ceiling, it was obvious to put a test switch on the RCU, which may double up as a hush switch. The choice of voltage for a signal created by the RCU was arbitrary. It had to be sufficiently distinguishable from

the voltage created by an alarm device when smoke is detected but it could be higher or lower.

88. Mr Woodward agreed that the British Standards suggest a remote test switch for Grade D and E systems, which would be necessary where the alarm devices are out of reach. A Grade C system must also have a remote hush switch. Such additions to the Ei 159 System would be technically easy. He added that it would not be a simple task to add test or hush switches to the System but he had in mind having to change a physical example of the Ei 159 System, as opposed to creating a new system from scratch using a modified Ei 159 System design. I understood Mr Woodward to mean that there were no technical barriers in the way of doing such a thing.

89. As I have mentioned, Mr Woodward said that the idea of using different analogue voltage levels for different signals was 'as old as the hills'. He further agreed that in the context of the Ei 159 System, which is connected to the mains supply, the option staring the skilled person in the face was to use mains power for a 6V test signal.

90. I find that claim 5 does not contain an inventive step over claim 1. It was obvious to modify the Ei 159 System to include a switch on the RCU which caused a signal on the IC wire of a voltage higher than that of the alarm interconnect signal. This is also fully consistent with the CGK.

Claim 13

91. Claim 13 is dependent on claim 12.

92. As appears from claim 1, the switch on the RCU providing the locate function works by the circuit shorting the IC wire, i.e. linking it to ground. That is achieved by the circuit applying a turn-on voltage to a transistor. The turn-on voltage is applied by a capacitor. To do this the capacitor must have charge. It is charged from the IC wire when the IC wire has a high (i.e. significant) voltage due to one of the alarm devices being in alarm mode.

93. The locate function has no purpose if either the test or hush functions are in use. Claim 13 states that when the test or hush switch on the RCU is pressed, this shorts the capacitor, which loses charge and cannot apply a turn-on voltage to the transistor, disabling the locate function.

94. The only point taken by EIT in argument with regard to claim 13 was that it is not obvious that the 'test' of claim 12 means a chamber test. As noted above, Mr Woodward said that the testing recommended by BS 5839, including testing using a remote test switch, is a chamber test and that this was part of the skilled person's CGK. He also said, though it did not appear to be in dispute by the time of the trial, that in respect of either a test or hush switch, the obvious way to override the locate function was by shorting the capacitor in response to the switch being pressed. I accept that evidence.

95. Claim 13 does not contain an inventive step over claims 1 and 5.

Conclusion on the Ei 159 System and inventive step

96. Claims 5 and 13 lack inventive step over the Ei 159 System.

Kaiser – inventive step

97. Notwithstanding my finding that it is abuse of process for EIT to contend that Kaiser does not disclose integers 1.0 to 1.5 of claim 1 of the Patent, I will consider inventive step in relation to claim 1 as a whole.

98. EIT argued in closing that claim 1 contains two ideas which make up its inventive step over Kaiser: using an RCU and the concept disclosed in integer 1.6. I have found that the use of an RCU was part of the CGK of the skilled person. The idea of a test switch was part of the skilled person's CGK, was present in market leading systems and was recommended by BS 5839. Kaiser is a smoke alarm as well as a carbon monoxide alarm so it would have been obvious to place at least some of the alarm devices on or close to the ceiling and to have the test switch on an accessible RCU.

99. The argument was really about integer 1.6. That integer requires that (a) the turn-on voltage applied to the transistor (causing the IC wire to be linked to ground) is applied by a capacitor and (b) the capacitor is charged from the IC wire when the IC wire has a high (significant) voltage due to one of the alarm devices becoming active. The practical effect of this arrangement is that the capacitor will only apply the turn-on voltage for a limited time – until the charge in the capacitor is exhausted. The locator function will therefore operate for a finite period, after which the system reverts to its normal state. For short, this can be called an analogue 'time-limited' feature.

100. Mr Parker said that the skilled person would have known that some sort of time-limited function was essential for any locate function because otherwise it might not be turned off, in which case the alarm devices made silent would remain dangerously so even if smoke (or carbon monoxide) was detected. This was not challenged.

101. Mr Parker also said that the implementation of a time-limited locate feature would have been straightforward. One way would have been to use simple electronic circuitry and components well known and understood by the skilled person, including a 'one-shot' timing and delay circuit of the conventional type disclosed in integer 1.6 of the Patent. This would have been entirely routine if the skilled person were to design an alarm system by modifying Kaiser and implementing the design in analogue electronics.

102. EIT emphasised that Kaiser is an entirely digital device. Mr Woodward said in his expert report that a time-limited feature would inevitably have been implemented in the digital domain, i.e. using a microprocessor. Adding the feature in analogue form would add cost and complexity, it would also increase the size of the system and would be less accurate. Further, charging the capacitor from the IC wire when it has a significant voltage due to an alarm device having detected smoke is technically particular to the Patent's circuit

architecture and would not have been an obvious design choice to a designer working with Kaiser's digital framework.

103. Mr Parker said in cross-examination that the skilled person would not realistically have implemented Kaiser in its entirety as an analogue system. In re-examination Mr Woodward said the same. His reasons were that it would have been more expensive, bigger and would have required more power. Neither he nor Mr Parker said that it would have been technically difficult. The skilled person would certainly have rejected the project as a commercial nonsense but Mr Parker's evidence that it would have been technically obvious was maintained by him and not contradicted by Mr Woodward.

104. In any event, that was not Hispec's case. Mr Woodward was asked to consider a skilled person who wanted a relatively simple Grade D system and looked at Kaiser for information about how a CGK analogue system could, to useful purpose, incorporate one or more features disclosed in Kaiser. This would be a fresh design, not a reworking of the whole of Kaiser. I accept that such a project is something that the skilled person would have contemplated (among other possibilities) at the priority date. I have found that it would have been obvious to begin with integers 1.0 to 1.5 of the Patent.

105. The elements of integer 1.6 were put to Mr Woodward and he agreed that each of them was a standard technique, seen as an obvious option by the skilled person. Mr Woodward was initially resistant to changing the view stated in his report that using the IC wire to charge the capacitor was a peculiarity of the system claimed in the Patent, obviating the need for a battery, and not an obvious choice. It emerged that his point was that the current loading of the system may not have been sufficient to charge the capacitor. This exchange followed:

> 'Q. The current loading is not actually a problem here. Would you agree?
>
> A. It could be, but it depends on the system.
>
> Q. It is a problem you have control over?
>
> A. Yes.
>
> Q. So you can design around it. In those circumstances, the skilled person has a power source to charge their capacitor staring them in the face in the form of the interconnect line?
>
> A. They do, yes, correct.
>
> Q. So that would be an obvious solution, an obvious answer to the question, what voltage shall I use to charge my locate timer capacitor?
>
> A. What voltage you say?

> Q. What voltage source shall I use to charge my locate timer capacitor; yes?
>
> A. Yes.'

106. There was a suggestion from EIT in closing argument that the cross-examination of Mr Woodward in relation to Kaiser had progressed using the step-by-step approach deprecated in *Technograph Printed Circuits Ltd v Mills & Rockley (Electronics) Ltd* [1972] RPC 346, at 362. I disagree. Hispec did not postulate a successive combination of steps which, if all were taken, provided a path through the thicket by which a skilled person might have arrived at the invention. What the evidence showed was that the skilled person reading Kaiser and with their CGK in mind had a variety of obvious alternative options when considering possible designs of an analogue Grade D system. Adopting any of them would have been obvious at the priority date. Given the evidence I have discussed, I find that claim 1 lacks inventive step over Kaiser.

107. I have found that neither claim 5 nor 13 is independently inventive over claim 1.

Conclusion

108. The Patent is invalid.