FEDERAL COURT

IN THE NAME OF THE

PEOPLE VERDICT

X

ZR 114/13Rulled on: May 10, 2016 Other Clerk of the Court as Clerk of the Registry

in the case

Reference book: yes

BG

HZ:no

BGHR:yes

Heat exchanger

EPC Art. 69; Patent Act Art. 14; Civil Code Art. 242 Cd, D; TRIPS Art. 30; Directive 2004/48/EC Art. 3(2)

a) The determination of the meaning of a subclaim can in principle contribute to the correct interpretation of the main claim of a patent. It should be noted, however, that subclaims do not generally narrow down the subject-matter of the main claim but, unlike embodiments, merely indicate possibilities for its embodiment, possibly with an additional advantage.

b) The granting of a grace period in patent infringement proceedings can only be considered if the immediate enforcement of the injunctive relief of the patent proprietor, even taking into account his interests due to special circumstances of the individual case, would represent a disproportionate hardship vis-à-vis the infringer, which would not be justified by the exclusive right and the regular consequences of its enforcement, and would therefore be disloyal.

BGH, Judgment of 10 May 2016 - X ZR 114/13 - OLG Karlsruhe

LG Mannheim

ECLI:DE:BGH:2016:100516UXZR114.13.0

The X. Civil Senate of the Federal Court of Justice, at the hearing on 10 May 2016, by the Presiding Judge Prof. Dr. Meier-Beck, Judges Gröning and Dr. Grabinski, and Judges Schuster and Dr. Kober-Dehm, ruled as follows

...is right:

> In the alternative, set aside the judgment of the Court of
> The court annulled the decision of the 6th Civil Senate of the Higher Regional Court of Karlsruhe of 7 August 2013 with regard to costs and to the extent of the subsequent amendment of the judgment of the 2nd Civil Chamber of the Regional Court of Mannheim of 17 January 2012 and amended this judgment:
>
> The first defendant is ordered to cease and desist from manufacturing a heating system for vehicles with open passenger compartments, such as convertibles, in which warm air is supplied via ducts for heating purposes, which is designed separately from the vehicle heating and ventilation system as an additional heating system, which is provided as a separate heating system with PTC elements and heat-exchanging metal fins and fans, in which air nozzles are provided in the region of the backrest of seats for flowing warm air around the head, neck and shoulder region of the seated person and in which the flow of warm air achieved by this is spatially limited in such a way that it reaches as far as the two outer sides of the shoulders and the upper arms.
>
> The first and third defendants are ordered to cease and desist from offering, placing on the market, using, importing or possessing the above heating system for the purposes mentioned.
>
> For each case of infringement, the 1st and 3rd defendants are threatened with an administrative fine of up to €250,000 - or imprisonment - or imprisonment for up to six months, or in the event of repeated infringement, up to a total of two years.

The first and third defendants are also ordered to provide the applicant with an account of the extent to which they have committed the acts alleged against them since 28 February 1998, specifying

- the first defendant: of the quantities and times of manufacture,
- Defendant 3: the quantity of products received or ordered, the names and addresses of manufacturers, suppliers and other previous owners, and the prices paid,
- of the individual deliveries, broken down by delivery quantities, -(and, where appropriate, type designations) and the names and addresses of the purchasers, including the sales outlets for which the products were intended,
- of each tender, broken down by quantity, time and price offered (and, where appropriate, by type) and the names and addresses of the tenderers,
- the advertising carried out, broken down by advertising medium, its circulation, distribution period and distribution area, and
- of the cost of sales broken down by individual cost factors and the profit generated;

Purchase prices and points of sale are only to be reported for the period since 1 September 2008.

It is declared that the 1st and 3rd defendants are obliged to compensate the applicant for the damage caused and to be caused to the former patentee L. S . by the acts prohibited to them committed from 28 February 1998 to 15 August 2011 and to the applicant itself by the acts prohibited to them committed since 16 August 2011.

Dismisses the remainder of the action.

The further appeals are dismissed.

The applicant shall bear one third of the court costs and the extra-judicial costs incurred by it, the first and third defendants shall bear a further third jointly and severally and the first and third defendants shall each bear a further sixth. The first and third defendants are to bear their own costs and the second defendant is to bear its own costs.

By law

Facts:

1 The applicant is the registered proprietor of German patent 196 54 370, filed on 24 December 1996, claims 1 and 3 of which are the subject of patent revocation proceedings (BGH, judgment of 16 November 2010).
- X ZR 97/08, juris) have received the following version:

"1. heating system for vehicles with an open passenger compartment, such as convertibles, to which warm air is supplied via ducts for heating, characterized in that,

a) that it is designed separately from the vehicle heating and ventilation system as an auxiliary heater,

b) in that it is provided as a separate heater with a separate heat exchanger (22, 42) and fan (23, 43),

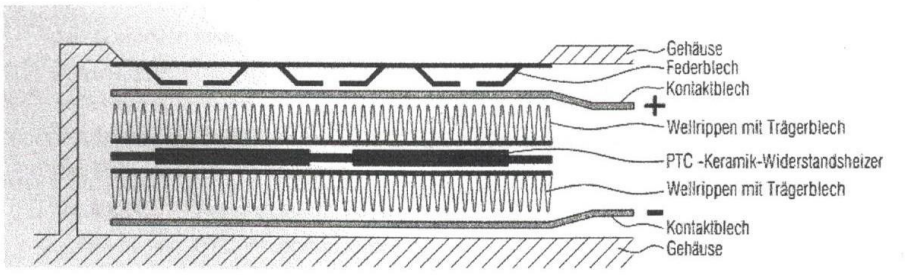
c) in that air nozzles (6, 33) are provided in the region of the backrest (3, 32) of seats for flowing warm air around the head, neck and shoulder region of the seated person, and

d) that the resulting warm air flow is spatially limited in such a way that it reaches up to the two outer sides of the shoulders and the upper arms.

3. heating system according to claim 1, characterized in that electric heating wires are provided in at least part of the air ducts (20, 41)."

2 Defendant 1 manufactures heating systems for convertible seats in its plant in B. manufactures heating systems for convertible seats. The 2nd defendant is its parent company. The heating systems are inserted into the backrests of the seats and essentially consist of a fan in the form of a paddle wheel, a PTC heating element (PTC = Positive Temperature Coefficient) and a special air duct. In this process, a stream of air generated by the blower is guided through the PTC element and heated for discharge in the neck area of the vehicle occupants. The systems are installed under the designation "X" as special equipment in certain vehicles manufactured by the third defendant and are supplied as spare parts.

3 According to a principle sketch on file, such PTC elements are an arrangement of the following components:



4 According to the findings of the Court of Appeal, electric current is conducted to the PTC ceramic resistors via the outer printed circuit boards and the corrugated ribs (lamellae) so that they heat up. The resulting heat is transferred via the carrier plates to the metal lamellae and heats the air flowing past them. The conduction of the electric current to the ceramics themselves does not contribute to the heating of the lamellae, or only to a barely measurable extent.

5 The applicant has argued that, of all the features of claim 1 of the patent in suit, that system makes literal, in any event

but by equivalent means; it last brought an action against the defendants before the Court of Appeal for injunctive relief, rendering of accounts, recall, destruction and publication of judgment, and sought a declaration of its obligation to pay damages. The action was unsuccessful at the lower instances. In its appeal, which was allowed by the Senate, the plaintiff continues to pursue the claim for injunctive relief and the claim for rendering of accounts - except for the proof of delivery and production quantities by means of copies of documents - and its claim for a declaratory judgment; it has waived the other claims. The defendants request that the appeal be dismissed and, in the alternative, that the first and third defendants be granted a period of grace until the vehicles equipped with X-Technology that were ordered up to the date of the appeal judgment are delivered, plus a period of two months, but for a maximum period of seven months, and to declare the third defendant entitled to supply vehicles already manufactured but not yet sold to end users within that period, but also to manufacture vehicles with X technology ordered up to that date. The plaintiff opposes this request.

Reasons for Decision:

6 I. The patent in suit concerns a heating system for vehicles with an open passenger compartment. According to its description, heating systems for vehicles were known in the prior art, in which the air heated by means of heat exchangers is supplied to the closed passenger compartment via ventilation ducts mounted in the area of the interior trim and provided with outlet openings and flaps. However, satisfactory results could not be achieved with open vehicles such as convertibles, because the air flow in the passenger compartment was not sufficient due to the

The applicant submits that, as a result of the strongly accelerated airflow directed upwards from the windscreen, negative pressure is created in the area of the open passenger compartment and, as a consequence, a reverse airflow is created which flows past the seats from the rear to the front. This reverse air flow was not undesirable because it was part of the feeling of driving a convertible, but in unfavourable weather conditions the cool draught could lead to hypothermia and damage to health in the head, neck and shoulder area.

7 Against this background, the patent in suit concerns the problem of creating a heating system in which the head, neck and shoulder regions of the vehicle occupants are better protected against hypothermia when travelling in open vehicles. To this end, the patent in suit proposes a heating system in claim 1,

1. for vehicles with an open passenger compartment, such as convertibles,
2. (at) which heat is supplied via ducts for heating,
3. which is designed as a separate auxiliary heating system, separate from the vehicle heating and ventilation system, with a separate heat exchanger and fan,
4. in which air nozzles are provided in the area of the backrest of seats,
5. with suitability for flowing warm air around the head, neck and shoulder area of the seated person,
6. whereby the resulting warm air flow is spatially limited and extends to the two outer sides of the shoulders and to the upper arms.

8 II. the Court of Appeal assumed that the contested heating system complied with features 1, 5 and 6 and essentially stated with regard to the implementation of features 2 to 4, which were disputed between the parties, by the contested embodiment:

9 Characteristics 2 and 4 were also fulfilled. In the case of the contested heating system, heat is supplied via ducts for heating. Feature 2 was not to be understood as meaning that the heating system had to be connected to the warm air system of the vehicle and that warm air itself had to be supplied to it. Rather, it was sufficient for air to be heated in the heat exchanger and then conducted via ducts to the air nozzles (feature 4) in order to flow around the head, neck and shoulder area of the vehicle occupants after it had been discharged. In the patent application it is stated several times that it is a matter of supplying the air nozzles with warm air, whereby the suction of cold air for heating in the heat exchanger is also described. It is in this way that the impugned embodiment is constructed. The air is heated when passing through the fins of the PTC heating element and is supplied to the nozzles via a duct system.

10 In contrast, the contested embodiment does not use a heat exchanger within the meaning of feature 3. It is true that such a device does not necessarily have to use the heat generated during vehicle operation, i.e. the heated cooling water or the exhaust gases, but can also exchange heat generated specifically for its use. However, the concept of a heat exchanger does not cover a device which merely generates and dissipates heat like a heating wire or a heating plate. This is clear from claim 3 and from the distinctive comparison of heating wires and heat exchangers in the description. The patent in suit regards heat exchangers and electric heating wires as different devices. The fins of the PTC elements are heating wires shaped like plates, and the heat generated by the resistance heaters of the PTC elements is not exchanged by the fins, but the latter merely increase the surface of the device for better transfer of the generated heat to the air flowing through. It is therefore

Devices which themselves generated heat and did not serve the sole exchange of heat according to the invention.

11 In the absence of the use of a device with the same effect of bringing about an exchange of heat, the solution of the contested embodiment cannot be assessed as an equivalent realisation of feature 3, particularly since the subject-matter of patent claim 3 would lead the skilled person away from considering the active generation of heat in the air flow to be covered by the scope of protection of the patent in suit.

12 III The appeal successfully challenges this assessment of the content of the patent claim and its scope of protection.

13 (1) The Court of Appeal, in developing the understanding of the term "heat exchanger" in accordance with the patent, referred to the principle of experience recognised in the case law of the Federal Court of Justice that terms in patent specifications may have a meaning which deviates from the general (technical) usage of the language and which is then decisive for the correct understanding of the technical teaching in question (Federal Court of Justice, judgment of 2 March 1999 - X ZR 85/96, GRUR 1999, 909 - Spannschraube; judgment of 2 March 1999 - X ZR 85/96, GRUR 1999, 909 - Spannschraube).
12 March 2002 - X ZR 168/00, BGHZ 150, 149, 155 f. - Schneidmesser I). The question whether the patent in suit is based on a "dictionary of its own", however, does not arise in the case in dispute insofar as the Court of Appeal states that the linguistic usage at the filing date was inconsistent with regard to the term heat exchanger and the submissions of both parties prove, inter alia, that PTC heaters or their fins were (also) referred to as heat exchangers at the filing date of the patent in suit. An understanding that includes or excludes such resistance heating elements from the concept of a heat exchanger according to the patent therefore does not constitute a characterisation that deviates from an established general (technical) understanding of the language.

14 (2) For its understanding of the concept of heat exchanger under the patent in suit, the Court of Appeal, according to the context of the reasons for the judgment of appeal, relied to a decisive extent on the relationship between claim 1 and claim 3 and the fact that in the latter subclaim an element designated as a heating wire is provided as an additional means for heating the air flow. The conclusion drawn from this by the Court of Appeal that an assembly cannot be regarded as a heat exchanger is not correct.

i. However, the fact that the patent can be classified within the meaning of feature 3 if the heat is generated in the same way as with a heating wire is legally incorrect to the extent that it is relevant to the decision. The embodiment protected in patent claim 3 and the explanations relating thereto in the patent specification in suit (C1 patent specification, description, column 2, line 44 ff.) do not have the significance attached to them by the Court of Appeal for determining the meaning of patent claim 1 with regard to the term "heat exchanger" in feature 3.

15 a) Determining the meaning of a subclaim can in principle contribute to the correct interpretation of the main claim (see Schulte/Rinken/Kühnen, Patent Law, 9th ed., § 14, marginal no. 26). This is because subclaims further elaborate the solution protected in the main claim and can therefore - indirectly - provide insights into its technical teaching. It should be noted, however, that they do not normally restrict the subject-matter of the main claim but, not unlike examples of embodiments (Federal Court of Justice, judgement of 7 September 2004 - X ZR 255/01, BGHZ 160, 204, 210 - Bodensei- tige Vereinzelungseinrichtung), merely indicate possibilities of its embodiment - possibly with an additional advantage. Moreover, the extent to which viable conclusions for the understanding of the main claim and the terms used in it can be drawn from the subject-matter of a subclaim depends on the circumstances of the individual case, in particular also on what the supplement to the technical teaching of the main claim proposed by the subclaim consists of and on which it is based.

the way in which it develops the subject-matter of the main claim. If, for example, a feature is supplemented by an aspect further shaping this feature in the interest of functional optimisation, this may under certain circumstances be more likely to allow viable conclusions to be drawn as to the understanding to be attached to the feature in question in the context of the teaching of the patent in suit than if a further element is added to the features of the main claim. Inferences from the nature of the additional feature to the "correct" understanding of the main claim will in any case not be easily drawn in this case.

16 b) In the case in dispute, it is a question of one of the last described additions to the main claim. The main claim and the sub-claim are interrelated in that a further autonomous heating means (heating wires) is provided to support the effect of the heating system protected by the main claim. The Court of Appeal drew conclusions from the nature of this additional means as to the mode of operation of the main heating means provided, namely the heat exchanger of the additional heating system, which, however, are not sustainable.

17 aa) According to claim 3, electric heating wires may be provided in at least part of the air ducts (20, 41). In the description, this is suggested as an expedient embodiment in order to effect additional heating of the air flowing to the nozzles and to shorten the heating time independently of the engine temperature, in particular in the case of insufficient heating capacity of the heat exchanger - for example in cooler weather (description, column 2, line 44 ff.). As a remedy, the patent in suit proposes in claim 3 the use of an additional heating source operating in such a way that the air flow which is not sufficiently heated by means of the heat exchanger or which has already cooled down again on its way to the nozzles is cooled down again on the way to the nozzles by space-saving use of the available heat exchanger.

air ducts, so that sufficiently heated air can flow around the head, neck and shoulder areas of the occupants.

18 bb) Patent claim 3 thus indicates a means by which the aim of the additional heating according to the invention, namely to provide a sufficient flow of warm air in the neck and shoulder region, can be achieved even better, because the heating wire responds immediately and thus, for example after a cold start, the time span can be bridged until the cooling water has already warmed up sufficiently to provide the heat exchanger with sufficient heat capacity. The Court of Appeal did not deal with the question of what is to be inferred from this further development of the teaching according to the invention for the understanding of the invention in the general form of the main claim, but interpreted the term heating wire in isolation as an opposite term to the term heat exchanger used in patent claim 1, as illustrated in particular by its consideration that the fins of the PTC element represent a heating wire widened as it were into a plate. However, the fact that the heat exchanger according to feature 3 and the heating wire provided for in patent claim 3 both serve to heat the air flow does not justify a restrictive understanding of the term "heat exchanger" in the sense of patent claim 1 - going beyond the self-evident fact that a heating wire is not a heat exchanger - in the sense of a definition oriented towards the opposite term "heating wire". The appeal judgment does not show that the description would give rise to the assumption that the patent in suit refers to a heat exchanger in the main claim in order to distinguish it from other heating elements, namely heating wires.

19 cc) The Court of Appeal's reasoning in this regard also contradicts its own starting point, namely that the protected heat exchanger is not, according to the expert's understanding, reduced to recovering the heat generated during the operation of the vehicle.

heat (cooling water, exhaust gases), but could resort to heat generated only for him. With this premise, the view of the Court of Appeal that the release of the heat generated by the PTC heating elements via the lamellas cannot be regarded as heat exchange within the meaning of claim 1 cannot be reconciled in a technically meaningful way. This would have the consequence that, within the scope of the additional heating system protected by the patent in suit, another fluid functionally corresponding to the cooling water or exhaust gas would have to be provided and heated in order to give off its heat to the air flow which is conducted past it (without contact). In view of the constructional effort involved, the skilled person would not understand the term "heat exchanger" in the context of the teaching of the patent in suit in the sense attributed to it by the Court of Appeal. This is all the more true since, according to the findings of the Court of Appeal, the language used in relation to this term on the filing date of the patent in suit was not uniform and, from the point of view of a person skilled in the art, there was no compelling need to reduce it to the description in the guideline VDI 2076 (ROKH 14), where heat exchangers are indeed described as devices in which warmer substances release part of their heat and this is absorbed by colder substances, whereby the mass flows involved in the heat exchange do not touch each other, but this definition is related to the proof of performance for "heat exchangers with two mass flows".

20 IV. The judgment under appeal cannot therefore be upheld on the grounds given by the Court of Appeal. Insofar as it relates to the action directed against the first and third defendants, it is also not correct in its result for other reasons and must be set aside to this extent (§ 562.1 ZPO). Contrary to the view taken by the appellate court, the court of appeal made viable findings on the realisation of characteristics 2 and 4.

21 (1) The third defendant complains about the lack of findings that hot air is supplied via ducts in the challenged embodiment. This complaint is based on an editorially misleading wording of the claim and a subsequent misunderstanding of the meaning of feature 2.

22 a) According to the established case law of the Federal Court of Justice, the interpretation of the patent claim required for the assessment of a patent infringement must determine the meaning of the claim as a whole and the contribution of each individual feature to the overall result of the invention (Federal Court of Justice, judgement of 13 February 2007 - X ZR 74/05, BGHZ 171, 1120 - Kettenradanordnung I; judgement of 17 July 2012 - X ZR 117/11, BGHZ 194, 107 - Polymerschaum I). The interpretation of claim 1 of the patent in suit oriented to these requirements does not disclose any indication that an embodiment would be technically intended in which heat is (already) supplied to the heating system via ducts, and feature 2 was intended to express this. The feature states, as the Court of Appeal correctly pointed out, that heated air is conducted via ducts to the nozzles in the area of the backrests. The fact that no heating system is claimed to which, on the other hand, already heated air is supplied, already follows from the fact that patent claim 1 in the granted version included heating systems in which the warm air supplied to the nozzles was generated by the general warm air system of the vehicle, i.e. no additional heating was used at all (description, column 2, line 23 et seq.), and from the point of view of a skilled person it is far from being the case that the warm air system of the vehicle is, for its part, already supplied with warm air via ducts for heating. Nothing else applies to the limited subject-matter of the patent in suit, and also in both embodiments of the invention fresh air is sucked in (Ex. 3 lines 43 ff.; lines 59 ff.). In claim 1, only the conjunction "in the case of" is missing in the wording of feature 2. It refers to the introductory sentence of the description of the patent in suit, in which the invent-

The claim is described as a heating system for vehicles, in particular those with an open passenger compartment or a passenger compartment to be driven open, "to which" warm air is supplied via ducts for heating. This description has found its way into the granted patent claim 1 (cf. facts of the Senate's decision of 15 November 2010 - X ZR 97/08) and has therefore also remained in the limited version of the claim.

23 b) In the attacked embodiment, the hot air is also ducted (channelled) to the nozzles. This warm air does not necessarily have to be generated in front of the ducts within the additional heating system. The passage of the description (column 3, line 5 ff.) claimed by the third defendant for its contrary position refers to a certain advantageous embodiment and the corresponding representation in figures 2 and 4. According to general principles, this is not suitable for limiting the subject-matter and scope of protection of the patent (BGHZ 160, 204, 210 - Bodenenseitige Vereinzelungseinrichtung).

24 Feature 4 is fulfilled literally according to the context of the reasons of the appeal judgement. The Court of Appeal obviously understands the term "nozzles" in the context of claim 1 as a synonym for "air outlets". This is appropriate in view of the function assigned to these elements according to the features of the claim as a whole, namely to ensure that warm air flows around the head, shoulder and neck area as far as the outer sides of the shoulders; a conically narrowing mouth, which the air outlet openings are intended by the defendant to have, and the associated focussing of the air jets could possibly even be detrimental to achieving the said purpose, because a certain dispersion of the air flows is more favourable for this.

25 The air outlet openings are provided in the region of the backrest in accordance with feature 4. That the patent in suit does not contain any of the contested embodiments

The fact that the trade mark shows a directly corresponding design does not restrict its subject-matter and scope of protection in that respect either (see recital 23 above).

26 V. The Senate can decide on the merits of the case itself (§ 563 (2) ZPO) because the legal dispute is ripe for a final decision on the basis of the findings made and further findings are neither necessary nor to be expected.

27 (1) It is quite possible that the PTC elements used by the contested embodiment constitute heat exchangers within the meaning of feature 3 from a professional point of view and that this feature is therefore fulfilled verbatim.

28 The patent in suit, as granted in claim 1, does not specify the manner in which the air flow supplied to the passenger compartment is heated, even for the main heating of the vehicle. This could speak in favour of an understanding of the separate heat exchanger in the sense of feature 3, which places the emphasis on the separate provision of the heat required for the additional heating rather than on a specific form of provision by heat exchange between two mass flows.

29 On the other hand, the description is pervaded by the assumption, which is taken for granted, that the vehicle (main) heating system consists of a "classic" heat exchanger in which the thermal energy required for heating the heating air flow is delivered by another fluid flow, in particular the cooling water flow. This could speak in favour of also understanding the "separate heat exchanger" of feature 3 in this (narrower) sense.

30 However, this does not require a final decision. The contested embodiment also falls within the scope of protection of the patent in suit.

tents, if feature 3 is based on a narrower understanding of a heat exchanger. The contested design, in which the heat generated by the PTC resistance heating elements is absorbed by fins and released to the air passing by them, in any case fulfils the requirements set out in the case law of the Federal Court of Justice for the infringement of property rights by equivalent means (cf. Judgment of 13 January 2015 - X ZR 81/13, GRUR 2015, 361 marginal no. 18 - Kochgefäß; Judgment of 10 May 2011 - X ZR 16/09, BGHZ 189, 330 marginal no. 28 et seq. - Okklusionsvorrichtung; Judgment of 14 December 2010, GRUR 2011, 313, marginal no. 35 - Crimpwerkzeug IV; Judgment.
of 12 March 2002 - X ZR 168/00, BGHZ 150, 149, 154 - Schneidmesser I). This follows from the following considerations.

31 a) The heat transfer via the fins of the PTC element achieves the effect of the heat exchanger according to the invention.

32 The skilled person understands from the description of the patent in suit that for the heating of the air for flowing around the head, neck and shoulder areas of the occupants, recourse can be made to the sources which are available anyway during vehicle operation, i.e. to the cooling water heated by the engine cooling or a cooling air flow or, if appropriate, to the exhaust gas flow. The fact that the patent in suit generally uses the term heat exchanger in connection with the generation of warm air for vehicle heating is explained against this background from the point of view of a skilled person by the fact that the warm air for general vehicle heating, as already mentioned, is usually and sensibly provided via heat exchangers, without the patent in suit in the granted claim 1 containing a specification in this respect and thus expressing that it is not only a matter of the heat transfer to the air flow used for heating, but also of where the thermal energy transferred to this air flow comes from.

33 This applies in particular to the heat transfer in the context of the additional heating system of the applicable limited version of patent claim 1. On the one hand, the energy requirement here is limited because the entire passenger compartment does not have to be heated, but on the other hand, as expressed in claim 3, the patent in suit considers it desirable to take into account the possibly long distance to a fluid flow from which the heat can be taken and the longer response time by means of a heating wire as an additional means for heating the air flow which responds quickly and can be placed in the vicinity of the point of action.

34 From the point of view of a skilled person, the only thing that matters for the simultaneous effect in connection with feature 3 is that the auxiliary heating only provides warm air flows during operation in a similar way to the general vehicle heating, whereby these are not intended to flow diffusely into the passenger compartment through the ducts and air flaps provided for this purpose, but are reserved for the targeted flow around the neck and shoulder area of the occupants. The PTC elements achieve this effect and at the same time that of the heating wires according to patent claim 3 by responding quickly and specifically to the need for warm air for the additional heating and transferring the thermal energy required for this purpose via the blades to the air flow supplied in the area of the backrest nozzles.

35 Their operating mechanism is at least very similar to that of a heat exchanger in the sense of the definition in the guideline VDI 2076. According to the established facts, the fins (corrugated fins) are heated by the ceramic resistance heaters, and the heat absorbed by the fins is transferred to the air flow passing them for this purpose. The difference is therefore that the air stream to be heated is not led past another (hotter) fluid. Equal-

This is comparable to the transfer in a non-contact heat exchanger according to VDI 2076, because the heat is not exchanged by direct contact (mixing) of the flows with different temperatures, but is transferred via a partition wall. This partition corresponds to the corrugated fins through which the heat generated in the heating elements is transferred to the air flow and which have the corrugated surface profile for the purpose of increasing the effective area.

36 b) The person skilled in the art could find the modified design with its deviating means to have the same effect on the basis of his technical knowledge.

37 According to the judgment of the Federal Court of Justice in the invalidity proceedings referred to by the Court of Appeal, the relevant expert understanding includes the knowledge of a graduate engineer (FH) specialising in mechanical engineering with several years' professional experience with a vehicle manufacturer or approver who is concerned with questions of air conditioning for passenger compartments. According to the findings of the Court of Appeal and the statements in the expert opinion submitted by the defendants, PTC heating elements were known to him on the filing date of the patent in suit, and he was able to recognise on the basis of his specialist knowledge that they were suitable by their nature for the operation of an additional vehicle heating system if it was not possible to access a cooling fluid or the exhaust gas flow for this purpose or if such access appeared to be costly or otherwise inexpedient.

38 c) Finally, the provision of such PTC elements is also the result of a consideration of the skilled person based on the meaning of the teaching of claim 1, which justifies the assessment of this solution as equivalent. Since, as stated, the patent in suit leaves the selection of the source of thermal energy required for the additional heating to the person skilled in the art, the patent in suit does not provide for an equivalent solution.

In this context, the skilled person's consideration that he could also ensure the heat transfer necessary for heating the heating air flow by means of the fins of a PTC resistance heater and thus, if necessary, even dispense with an additional heating wire, is particularly relevant to the purpose of the separate heat exchanger according to the invention as well as to the function of the heat transfer to the neck and shoulder area, which is decisive for achieving this purpose, is directly oriented both to the purpose of the separate heat exchanger according to the invention and to the functional way of heat transfer to the air flow supplied to the neck and shoulder region which is decisive for achieving this purpose.

39 d) The "form stone" objection raised by the 1st and 2nd defendants (BGH, judgement of 29 April 1986 - X ZR 28/85, BGHZ 98, 12 - Formstein) is unfounded. The defendants do not show that and to what extent the equivalent embodiment of the teaching according to the invention realised by the contested additional vehicle heater would be suggested by the state of the art as a whole.

40 Accordingly, the first and third defendants are obliged to refrain from using the teaching according to the invention (Sec. 139 (1) in conjunction with Sec. 9, second sentence, No. 1, Patent Law). There is no room for granting the alternatively requested period of grace.

41 a) The granting of a grace period, which is usually intended to bridge the time required for conversion and removal measures (Teplitzky/Feddersen, Wettbewerbsrechtliche Ansprüche und Verfahren, 11th edition, 57th ed, para. 17), may be necessary in individual cases if the immediate enforcement of the patent proprietor's injunctive relief would represent a disproportionate hardship not justified by the exclusive right and would therefore be contrary to good faith, even taking into account his interests vis-à-vis the infringer.

42 aa) According to the case-law of the Federal Court of Justice, a period of limitation is generally possible, for example in competition disputes, from the point of view of good faith (Sec. 242 BGB), if the party obliged to cease and desist would suffer disproportionate disadvantages if the prohibition order were to take immediate effect and if the continuation of the challenged conduct for a limited period of time does not entail unreasonable adverse effects for the infringed party (cf. BGH, judgement of 11 March 1982 - I ZR 58/80, GRUR 1982, 425, 431 - Brillen-Selbstabgabestellen).

43 bb) The extent to which a period of revocation can also be granted in the case of patent infringement has not yet been decided by the highest courts (cf. BGH, judgement of 2 December 1980 - X ZR 16/79, GRUR 1981, 259 - Heuwerb-maschine II, where the court of appeal had granted such a period but the patent in suit had expired before the appeal was filed; cf. also BGH, judgement of 3 February 1959 - I ZR 170/57, GRUR 1959, 528 - Autodachzelt).

44 cc) In patent law literature, it is argued that the granting of a period of grace should be decided on a case-by-case basis, taking into account all interests involved and subjective elements (good faith or bad faith of the infringer). In particular, there is room for an exceptionally granted revocation period if the infringing subject matter concerns only a small but functionally essential component of a technically complex device and cannot be replaced by a patent-free or licensable product within a reasonable period of time (Benkard/ Grabinski/Zülch, PatG, 11th ed, (Benkard/Grabinski/Zülch, 11th ed., § 139 marginal no. 136a; Busse/Keukenschrijver, PatG, 7th ed., § 139 marginal no. 82).

45 dd) In the case of patent infringement, the granting of a grace period for reasons inherent in the nature of the infringement is only possible under certain circumstances.

narrow conditions. In this case, it is not a question of goods that are lawfully manufactured per se being provided with signs that infringe a trade mark (see Bornkamm in: Köhler/Bornkamm, UWG,
34th ed. § 8 UWG marginal no. 1.58) or the rights and interests of the entitled party are only indirectly endangered by unlawful advertising measures or the like (cf. in this respect for example Ahrens/Bähr, Der Wettbewerbsprozess, 7th edition, chap. 38 marginal no. 1 mwN). Rather, in the case of patent infringement, contrary to the effect of the patent (§ 9 Patent Act), a protected product is directly manufactured or put on the market or a protected process is used. It is therefore a necessary consequence of the claim for injunctive relief under patent law that the infringer must cease the patent-infringing production or the patent-infringing distribution and can only put the product concerned back on the market if he has either procured the rights required for this from the patent proprietor or has modified the product in such a way that it no longer infringes the property right, which may require considerable expenditure of time and money. The hardships inevitably associated with this are generally to be accepted. A limitation of the effect of the patent by granting a period of grace can therefore only be justified if the economic consequences of immediate compliance with the cease-and-desist order affect and disadvantage the infringer in the individual case, due to special circumstances, beyond the impairments which are normally associated with its pronouncement, to an extent which makes the unconditional cease-and-desist order appear unreasonable.

46 ee) The international agreements and Union law provisions cited in connection with the requested period of use do not give rise to a different assessment of the conditions for this.

47 (1) The Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS) does not contain provisions directly relating to exhaustion periods. Article 30 of TRIPS allows Members to grant limited exceptions to the exclusive rights conferred by a patent, provided that such exceptions do not unreasonably conflict with the normal exploitation of the patent and do not unreasonably prejudice the legitimate interests of the patent proprietor, taking into account the interests of third parties.

48 Even if this provision is understood to mean that it not only authorises a general restriction of the exclusive rights from a patent by legislative measures - on which the defendants cannot rely for their request - but also legitimises the infringement court to make corresponding exceptions in individual cases, the interests of the patent proprietor and the infringer would nevertheless have to be considered in equal measure in order to be able to assess whether the exception requested in each case does not unreasonably conflict with the normal exploitation of the patent. There are no indications that this could lead to a different assessment of individual aspects in the light of Art. 30 TRIPS in the weighing (V 3 b below).

49 (2) Article 3(1) of Directive 2004/48/EC of the European Parliament and of the Council of 29 April 2004 on the enforcement of intellectual property rights (OJ 2004 L 195, p. 16) provides that, in order to enforce those rights, Member States are to provide for fair and equitable measures, procedures and remedies which do not entail unreasonable time-limits or unjustified delays and which, in accordance with Article 3(2) of that directive, are effective, proportionate and dissuasive and are to be applied in such a way as not to affect legitimate trade and to ensure that they are not abused. 3(2) of the same Directive are effective, proportionate and dissuasive and are applied in such a way as not to restrict legitimate trade and to provide safeguards against their abuse.

50 Under those provisions of the Directive, the granting of a period of grace, although not explicitly mentioned, may in principle be considered from the point of view of proportionality, in so far as this is still compatible with the effectiveness required by Article 3(2) of the Enforcement Directive and the deterrent character of the measures provided for. However, this also does not, in principle at any rate, give rise to any other or further considerations than in the context of national law. This is confirmed by the fact that the possibilities opened up by Article 3(2) of the Enforcement Directive for the enforcement of unconditional injunctions are also not extended further by the English courts than is consistent with what has been said above (para. 45). According to a decision of the High Court for England and Wales (Pumfrey J) in a copyright dispute ([2005] EWHC 282 (Ch)
- Navitaire Inc v EasyJet Airline Co Ltd), injunctions are unconditional so long as they are not "oppressive", which is only when the effect of the injunction is "grossly disproportionate" to the benefit to the right protected. The Court of Appeal (Jacobs LJ in Virgin Atlantic Airways Ltd v Premium Aircraft Interiours Group, [2009] EWCA Civ 1513) also sees this assessment as consistent with Art 3 of the Enforcement Directive (similarly the High Court for England and Wales [Arnold J] in a patent case ([2013] EWHC 3778 - HTC Corp v Nokia Corp para 32).

51 b) Accordingly, the aspects asserted by the defendants do not justify the granting of a period of grace in the case at issue.

52 aa) The subject matter of the infringement concerns only a single element of a component (vehicle seat) inserted into a complex delivery item (vehicle). However, it does not represent a functionally essential component, but the X-heating system is a special equipment.

This is a feature of the vehicle that does not affect the general usability and usability of the vehicle and the vehicle seat. It has not been shown that there was no or no adequate licensing possibility. Even if the injunction were to amount to an obstacle to the delivery of the vehicles concerned - which would be rather limited in time from the outset due to the imminent expiry of the term of protection of the patent in suit - there are no apparent grounds for serious and disproportionate economic effects on the entire business operations of the first or third defendants or even in relation to a specific segment of their product range. Against this background, the unconditional injunction does not affect the defendants disproportionately.

53 bb) Fault considerations do not justify a more favourable assessment of the defendants. The defendants did not make use of the possibility of taking the subject-matter of the patent in suit under licence. The fact that the lower courts did not consider the challenged embodiment to be patent-infringing does not give rise to a more favourable assessment of the defendants, not even from the point of view of an alleged trust in the continuance of the decision of the Regional and Higher Regional Courts which is worthy of protection. The circumstance that courts of first instance have denied a breach of pa- tent does not, at any rate, in itself justify perpetuating the effect of their decisions for the period after delivery of the differently worded judgment on appeal by granting a period of grace. The unconditional effect of the injunction does not unreasonably affect the defendants in the given factual situation, even from this point of view.

54 c) The Senate has formulated the injunctive relief in accordance with the relief sought as an auxiliary request. This corresponds - irrespective of the question of a literal or equivalent infringement and without a different subject-matter in dispute from the main claim

the requirement to state in the claim and in a corresponding judgment by which embodiment of the contested product the teaching of the invention is realized, and thus to designate not the subject-matter of the patent in suit but the subject-matter of the dispute (BGH, judgment of 30 May 2005 - X ZR 126/01, BGHZ 162, 365 - Blasfolienherstellung; BGH, judgment of 21 February 2012 - X ZR 126/01, BGHZ 162, 365 - Blown Film Production; BGH, judgment of 21 February 2012 - X ZR 126/01, BGHZ 162, 365 - Blown Film Production; BGH, judgment of 30 May 2005 - X ZR 126/01, BGHZ 162, 365 - Blown Film Production; BGH, judgment of 21 February 2012 - Blown Film Production).
- X ZR 111/09, GRUR 2012, 485 - Rohrreinigungsdüse II).

55 The first and third defendants are also obliged to compensate the plaintiff for the damages suffered by the latter and the former patent proprietor - who assigned the claims for damages arising in his person to the plaintiff by agreement of 16 August 2011 - in accordance with Section 139 (2) Patent Act, since they could have recognised the infringement of the patent in suit by the manufacture and sale of the contested embodiment if they had exercised the due care required in the course of trade.

56 Finally, the obligations of the first and third defendants to provide an account are based on Section 242 of the German Civil Code and the claim to information about the distribution channel of the contested embodiment is based on Section 140b (1) and (3) of the Patent Act.

57 6 The further claims originally asserted for refusal, recall and publication of the judgment remain rejected after the plaintiff waived them in the oral proceedings before the Senate (§ 306 ZPO).

58 The action against the second defendant is unfounded. The Court of Appeal merely found that it is the parent company of the first defendant and that the parts supplied to the third defendant are marked "Lear Corporation". The latter may just as well point to defendant 1 alone and therefore does not justify - not even

in connection with the corporate affiliation of both companies, to attribute the patent infringement of the subsidiary to the parent company. Nothing else applies when taking into account the additional circumstance cited by the plaintiff that the second defendant, in response to the alleged patent infringement, asked to conduct further correspondence with it.

59 8. in the operative part of this judgment, pronounced at the end of the hearing on 10 May 2016, the decision of the Regional Court is annulled.
17 December 2012 and not 17 January 2012, the date on which the judgment of the Regional Court was pronounced. The Senate has corrected this obvious oversight in accordance with § 319 (1) of the Code of Civil Procedure.

60 VIThe decision on costs is based on § 91 (1), § 92 (2), § 97 (1) ZPO.

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BeckGröningGrabinski

SchusterKober-Dehm

Lower courts:
LG Mannheim, decision dated 17.01.2012 - 2 O 112/07 -
OLG Karlsruhe, decision dated 07.08.2013 - 6 U 12/12 -