

CANDIDATE'S ANSWER

C, EQE 2019

Formal data

See annexed Form 2300. Opposition is being filed against the grant of EP 3020234 on behalf of Domonia Ltd. The opposition fee is being paid via voucher or EPO online services.

Effective dates of the claims

Claim 1 defines three alternatives: the first defining that the Kera type layer is a KeraMa layer and a KeraSi layer (claim 1a); the second defining that the Kera type layer is a KeraMa layer (claim 1b); the third defining that the Kera type layer is a KeraSi layer (claim 1c).

Claim 1a was added during examination and extends beyond the content of the originally filed application (Art. 123(2) EPC) (see below); therefore, it has no effective date.

Claims 1b and 1c were part of the priority document and of the application as filed. They are thus entitled to the priority date (i.e. 14/11/2014).

Claims 2 to 5 were part of the priority document and of the application as filed. They are thus entitled to the priority date (i.e. 14/11/2014).

Claims 6 and 7: their technical content and the corresponding parts of the description (A1, par. [17], [18]) were not disclosed in the priority document and were added at the filing date of A1 (i.e. 14/11/2015). Therefore, the priority claim for claims 6 and 7 is not valid (G 3/93, G 2/98). Therefore, the effective date for claims 6 and 7 is the filing date (i.e. 14/11/2015).

Documents used

Annexes 2, 4, 5, 6 were published before the priority date of A1. Thus, they are prior art according to Art. 54(2) for claims 1b, 1c, 2-7.

Annex 3 was published between the priority date and the filing date of Annex 1, and it was filed on an earlier date than the priority date of Annex 1. It is a US patent application and is prior art under Art. 54(2) EPC for claims 6 and 7, which do not benefit from the right of priority but which just have the filing date as effective date. It is not prior art for the remaining claims.

Grounds of opposition under Art. 100(c) EPC

File inspection has revealed that claim 1a has been added during examination.

The feature of the Kera type layer being a KeraMa layer and a KeraSi layer is not directly and unambiguously derivable from the originally filed application. Par. [6] of A1 only discloses that the Kera type coating (which is a layer according to the same par.) may be a KeraSi or KeraMa layer.

Therefore, the requirements of Art. 123(2) are not fulfilled.

The claim 1a is therefore objected to under Art. 100(c) EPC.

Grounds of opposition under Art. 100(a) EPC

CLAIM 1b (INDEPENDENT)

Art. 54(2) using A4

A4 (1st embodiment – par. [4]-[6]) discloses an ironing device ([4] – dry ironing device) comprising an aluminium soleplate ([4] – a baseplate is a soleplate according to A1[1]) coated on its ironing side ([2], [3] – bottom side of the baseplate which comes into contact with the garment to be ironed, i.e. the ironing side) with a Kera type layer ([4]), the Kera type layer being a KeraMa layer ([4] – KeraMa coating; a coating is a layer according to A1[6]).

Therefore, claim 1b lacks novelty over A4.

CLAIM 1c (INDEPENDENT)

Art. 56 using A4

A4 (1st embodiment – par. [4]-[6]) is the closest prior art because it relates to an ironing device having an aluminium baseplate and addresses the same problem of protecting the baseplate and enhancing gliding (A1[6], A4[3]).

A4 discloses an ironing device ([4]) comprising an aluminium soleplate ([4] – a baseplate is a soleplate according to A1[1]) coated on its ironing side ([2], [3] – bottom side of the baseplate which comes into contact with the garment to be ironed, i.e. the ironing side) with a Kera type layer ([4] – KeraTix or KeraMa coating; a coating is a layer according to A1[6]).

The subject-matter of claim 1c differs from the teaching of A4 (1st embodiment) in that the Kera type layer is a KeraSi layer, instead of KeraTix or KeraMa.

The effect of this distinguishing feature is protection of the baseplate (A1[6]). Therefore the objective technical problem is to provide a baseplate of irons which is protected against deterioration.

In order to solve this problem, the skilled person would use his capacity for routine work and experimentation (GL, C-IV 9.6) to try and find an optimal coating.

Since A4 (2nd embodiment, par. [7]) discloses using a KeraSi layer on a baseplate made of Medur alloy, the skilled person would be motivated to test this layer also on an aluminium baseplate in order to find an optimal coating against deterioration of the baseplate, thus arriving at the claimed subject-matter. Furthermore A4[5] explains that Yur56 is compatible with Kera type coating in general and therefore also to KeraSi layer.

Therefore, claim 1c lacks inventive step over A4 (1st embodiment) combined with A4 (2nd embodiment).

CLAIM 2 (DEPENDENT ON CLAIM 1)

Art. 56 using A2 and A4

A2 is the closest prior art because it is the only available document which relates to a steam iron comprising a baseplate coated with Yur56 as intermediate layer and a Kera type layer as outer layer ([14]).

A2 discloses a steam iron ([1]) comprising a soleplate ([4] – soleplate 22, which is a baseplate according to A1[1]) coated on its ironing side with a Yur56 layer ([14]) and a Kera type layer ([14] – layer of KeraTix) in this order ([14] – “first” a layer of Yur56 and “then” a layer of KeraTix).

The subject matter of claim 2 differs from the teaching of A2 in that: (i) the baseplate is an aluminium baseplate (A2 discloses that the baseplate is made of a low-density metal but does not specify the type of metal) and (ii) the Kera type layer is a KeraMa layer.

The effect of feature (i) is the provision of a lightweight ironing device ([5] of A1).

The effect of feature (ii) is improved gliding (A1[6]).

Said two features (i) and (ii) do not mutually influence each other and have no synergistic effect. They solve separate partial problems and should therefore be treated separately (GL, G-VII, 5.2 or 6).

The feature (i) solves the technical problem of providing a lightweight ironing device.

The skilled person would turn to A4 since it also relates to an ironing device comprising a baseplate coated with Yur56 and a Kera type layer ([4], [5]). It also deals with the problem of providing a baseplate made of low density metal and proposes as a solution an aluminium baseplate ([4]).

Since Yur56 is compatible with aluminium (A4[5]) and A2 already discloses a baseplate made of a low density metal ([3]), the skilled person would be prompted to select aluminium among low density metals to make the baseplate of the steam iron according to A2, thus arriving at the claimed solution.

The feature (ii) solves the technical problem of providing a baseplate with improved gliding properties.

In applying the teaching of A4 to the steam iron of A2 to solve the problem solved by feature (i), the skilled person would realize that A4 also discloses solving the above mentioned additional problem by selecting KeraMa layer among Kera type layers ([4]). The desired effect is derivable from A4, Table 1 which shows that KeraMa layer provides excellent gliding, i.e. 3 for cotton and 4 for silk in a rank from 0 to 4.

Since also A4 discloses using Yur56 as intermediate layer ([5]), which is compatible with Kera type layers (A4[5]) and therefore also with KeraMa layer, the skilled person would be motivated to replace the KeraTix layer of A2 with the KeraMa layer of A4, thus arriving at the claimed subject-matter.

Therefore, claim 2 is not inventive over A2 combined with A4.

CLAIM 3 (DEPENDENT ON CLAIM 2)

Art. 56 using A2 and A4

A2 is the closest prior art for the same reasons set out above.

A2 discloses some of the features of claims 1 and 2 as set out above. A2 further discloses that the soleplate comprises steam outlets ([13] – steam outlets 25) and grooves starting from the steam outlets ([11], [13] – open channels, which are grooves according to A1[9]) to distribute steam ([11] – so that the steam is ... distributed), and the grooves are obtainable by low-pressure die casting and forced-air cooling ([12] – product-by-process claim (GL, F-IV, 4.12): the grooves are not rendered novel merely by the fact that they are produced by means of a low-pressure (0.5 bar) die casting instead of a die casting performed at 4 bar, the former having the only advantage of being easily implemented, cf. A1[10]. Therefore, this difference in the die-casting process does not lead to a difference in the grooves obtained thereby. Furthermore, the structure of the metal, i.e. the grooves, is exclusively determined by the forced-air cooling (A3[7])).

The subject-matter of claim 3 differs from the teaching of A2 by features (i) and (ii) set out under point 3.1 above.

The arguments set out in claim 2 concerning the effect, the problem and the solution addressed by these features (i) and (ii) also apply to claim 3.

Therefore, claim 3 is not inventive over A2 combined with A4.

CLAIM 4 (INDEPENDENT)

Art. 56 using A6 and A2

A6 is the closest prior art because it is the only available document which relates to steam iron with an internal water tank ([2]).

A6 discloses a steam iron ([7] – steam iron 61) with an internal water tank ([7] – water reservoir 63, which is a tank according to A1[2] and which is internal according to the Figure and [2]) and a soleplate ([7] – soleplate 62) with steam outlets ([7]).

The subject-matter of claim 4 differs from the teaching of A6 in that the soleplate comprises a region at the tip of the soleplate with a high density of steam outlets and a region at the back of the soleplate devoid of steam outlets.

This distinguishing feature has the effect of preventing waste of steam (A1[12]). The objective technical problem is therefore to provide a steam iron which allows for a more efficient use of steam and therefore a reduced frequency with which the water tank has to be refilled.

The skilled person would turn to A2 which relates to a steam iron and deals with the same problem of reducing the use of water ([5]). A2 proposes as a solution a soleplate comprising a higher density of steam outlets at the tip of the soleplate ([7]) and no steam outlets at the back of the soleplate ([8]).

The desired effect is mentioned in A2[9].

Since the functionality of a soleplate with the distribution of steam outlets according to A2 is independent from the position of the water tank (which is external in A2 and internal in A6), the skilled person would have no technical hindrance to apply the teaching of A2 to the steam iron of A6 in order to solve the posed objective technical problem, thus arriving at the claimed subject-matter.

Therefore, claim 4 is not inventive over A6 combined with A2.

CLAIM 5 (DEPENDENT ON CLAIM 4)

Art. 56 using A6, A5 and A2

A6 is the closest prior art for the same reasons set out under point 5.1.

A6 discloses the features of claim 4 (from which claim 5 is dependent) as set out under point 5.1.

The subject-matter of claim 5 differs from the teaching of A6 by the distinguishing feature set out under point 5.1 (also referred to feature (i)) and in that the steam outlets are part of steam dispensing ducts each having a longitudinal axis inclined at an angle of between 25° and 35° with respect to the ironing surface of the soleplate (feature (ii)).

The effect of feature (i) is that of preventing waste of steam (A1[12]).

The effect of feature (ii) is that of avoiding damaging delicate fabrics (A1[15]).

Said two features (i) and (ii) do not mutually influence each other and have no synergistic effect. They solve separate partial problems and should therefore be treated separately (GL, G-VII, 5.2 or 6).

The arguments set out in claim 4 concerning the problem and solution addressed by feature (i) also apply to claim 5.

The feature (ii) solves the problem of providing a steam iron which maintains the integrity of delicate fabrics, thus improving the quality of ironing.

The skilled person would turn to A5 since it relates to a steam iron and deals with the same problem of providing proper ironing of delicate fabrics while reducing the risk of damaging them ([3]). A5 proposes as a solution to provide steam outlets as part of steam passages extending through the soleplate to the ironing surface (claim 1 of A5 – said passages are steam dispensing ducts according to A1[15]), each passage having a longitudinal axis inclined at an angle of between 15° and 45° with respect to the ironing surface of the soleplate ([4], [5] and Fig.). The claimed range 25 – 35° is not a

novel selection from this known broader range – not narrow, end points not sufficiently far removed from known values, no special effect (arbitrary selection) (GL G-VI,8 or T 198/84 or T 279/89). The desired effect is mentioned in A5 [4 – last sentence].

Since A5[1] discloses that this teaching can be applied to all types of non-professional ironing devices, and therefore also to the steam iron of A6 which is for domestic use (A6[2]), the skilled person would be prompted to apply the teaching of A5 to the iron of A6 without any technical difficulty.

Therefore, claim 5 is not inventive over A6, A5 and A2.

CLAIM 6 (DEPENDENT ON CLAIM 4)

Art. 54(2) using A3

A3 discloses a steam iron with an internal water tank ([1] – steam iron with an internal water container, which is a tank according to A1[2]) and a soleplate with steam outlets ([3] – baseplate 31, which is a soleplate according to A1[1]; steam nozzles 32, which are steam outlets according to A1[9]), wherein the soleplate comprises a region at the tip of the soleplate with a high density of steam outlets ([3]) and a region at the back of the soleplate devoid of steam outlets ([3]). A3 also discloses that the region at the back of the soleplate extends at least 4 cm along the longitudinal axis of the soleplate (Figure – which shows that the region beyond the ribs 33, i.e. the back region devoid of steam outlets according to A3[10], extends for 6.5 cm, which falls within the open-ended range of at least 4 cm).

Therefore, claim 6 is not novel over A3.

CLAIM 7 (DEPENDENT ON CLAIM 6)

Art. 56 using A3 and A6

A3 is the closest prior art since it relates to a steam iron with an internal water tank comprising a soleplate with a high density of steam outlets at the tip and no steam outlets at the back. Furthermore, A3 requires only few structural modifications.

A3 discloses all the features of claim 6 (on which claim 7 is dependent) as set out under point 7.1 above.

The subject-matter of claim 7 differs from the teaching of A3 in that the steam iron comprises an opening in the back through which the water tank can be filled.

Said distinguishing feature has the effect of an easier refilling of the water tank ([18] of A1).

The objective technical problem is therefore to provide a steam iron which can be easily refilled with water.

When looking for a solution to this problem, the skilled person would be motivated to consult A6 since it also relates to a steam iron having an internal water tank (A6[2]) and also deals with the problem of making it easier to fill the internal tank (A6[4]). A6 proposes as a solution to provide an opening at the back of the iron (A6[5]).

The skilled person would see the advantages of this teaching and would be prompted to provide the opening of A6 to the steam iron of A3, thus arriving at the claimed subject matter.

Therefore, claim 7 is not inventive over A3 combined with A6.

Examination Committee II: Paper C - Marking Details - Candidate No

Category		Max. possible	Marks Marker 1	Marker 2
General	General	7	7	7
Claims	Claim 1	17	16	15
Claims	Claim 2	19	17	15
Claims	Claim 3	12	10	11
Claims	Claim 4	16	11	11
Claims	Claim 5	11	10	11
Claims	Claim 6	8	5	5
Claims	Claim 7	10	10	10
Total			86	85

Examination Committee II agrees on 86 points and recommends the grade PASS