

2008 PAPER P6

SAMPLE SCRIPT A

This script has been supplied by the JEB as an example of an answer which achieved a pass in the relevant paper. It is not to be taken as a "model answer", nor is there any indication of the mark awarded to the answer. The script is a transcript of the handwritten answer provided by the candidate, with no alterations, other than in the formatting, such as the emboldening of headings and italicism of case references, to improve readability.

Construction

- Scope of protection of the claims is what the skilled person would understand the language of the claims to mean.

GB 2121212 – Document A

Claim 1

1.1 - *“An electrical terminal ... covered with insulation ...”*

- * An electrical terminal = A joint where an electrical wire is connected to a power supply or possibly to another electrical wire, ie electrical circuitry.
- * An electrical wire = an elongate wire that is capable of conducting electrical current.

In the context of Doc A, the electrical wire is formed or constructed of a conductor (any material capable of concluding electrical current – copper wire) that is covered with insulation.

The term “*covered*” can mean the wire is completely surrounded on all sides by insulation (see Ref No 66 of Fig 2A) or merely that the wire is covered so that it is not exposed – covered on one, two or three sides).

The expression “*for insulation piercing connection*” suggests that the electrical terminal is suitable for connecting the electrical wire to a power supply by piercing the insulation of the electrical wire such that direct contact is made between the electrical wire and the electrical terminal.

(see Fig 2B)

1.2 - *“... said terminal comprising ... by respective bends”.*

- * comprising = The terminal/wire engaging portion includes but is not limited to the following features.
- * A rearward wire engaging portion = The terminal has a member that engages or comes into direct contact with the wire.

The term “*rearward*” suggests that this member is downstream of another feature of the terminal – in this case the pin 16 (not mentioned in the claim. Not of great importance.

The wire engaging portion of the terminal has a base or floor (see Ref No 28 in fig 2A) and also possesses a first side member and a second side member that are connected to the floor by respective bends.

The side members could be separate parts or could be integrated with the base of the terminal. In each case the connecting part are the respective longitudinal bends (see ref No's 50 and 52 in Fig 2A).

1.3 - "... *said side members ... wire receiving channel ...*"

- * Extending side by side = The side members project away from the base adjacent to one another (either in spaced relationship, - (see Ref No's 24 and 26 in fig 1) or in contact with one another) relative to the base of the terminal.

In the context of present invention, the side members run alongside each other a set distance (but claim language is not limited to this embodiment).

The positioning of the side members relative to each other define a channel or gap through which the electrical wire can pass. (See Ref No's 24, 26 and 66 in fig 3).

1.4 - "*each of said side ... said side members ...*"

- * At least one = one or more.

- * Insulation piercing jaw = element that will slice through or prick an aperture in the insulation surrounding the electrical wire (See Page 5/22, lines 15-16 - "*Each side member ... 36,38 jaws respectively.*" And Ref No's in Fig 1).

- * Directed toward a corresponding insulation piercing jaw at the other said side members.

= The insulation piercing jaw of the first side member faces in the general direction of an identical insulation piercing jaw on the second side member. (See Ref No's 32 and 34 in Fig 2A).

1.5 - "... *each of said insulating ... and edge portion ...*"

= Each of the insulating piercing jaws has a sharp or cutting edge section.

See page 6/22, lines 11-13 = "... *the edge portions 40 ... inner conductor 70*".

1.6 - "... *said edge portion ... said conductor ...*"

- * Being spaced from = There is a gap or space between the edge portion of one insulating piercing jaw of the first side member and the edge portion of one insulating piercing jaw of the second side member.

- * A distance slightly less than the diameter of said conductor.

= The width of the gap or space between the respective portions is slightly less than the diameter of the conductor of the electrical wire.

"*Slightly less*" - sufficient for the edge portions to cut through the insulation so that insulating jaw is in electrical engagement with the wire.

See Page 6/22, lines 3-5: "... *the normal spacing ... conductor 70*".

1.7 - "... *and said edge portions ... said wire receiving channel ...*"

* Piercing through said insulation ... engagement herewith.

= The sharp, cutting edge portions of the insulation piercing jaw slice through or prick an aperture in the insulation such that the piercing jaw grips onto the electrical wire (mechanical engagement) and comes into direct contact with the conductor part of the wire (electrical engagement).

See 6/22, lines 11-13: "... *the edge portions 40 ... inner conductor 70*".

* As a portion of said wire ... wire receiving channel.

= Clear, the electrical and mechanical engagement occurs as the wire is moved into the wire receiving channel delivered by the side members.

* Moved laterally divs axis means



that the wire is simply moved to the side divs axis to be moved into the wire receiving channel.

CLAIM 2 = CLAIM 1 + CLAIM 2

2.1 - "... *each said insulation ... said respective side member.*"

= Each insulation piercing jaw of the first (and second) side member has at least a part that is set at right angles (perpendicular) to said first (or second) side member.

See page 2, lines 16-18 = "*Each jaw is formed ... toward an opposite jaw*".

* Perpendicular = 90 degrees or substantially 90 degrees (few degrees above or below 90 degrees) so long as the end portion projects toward a corresponding end portion of an insulating jaw on opposite side member (purposiveconstruction).

* End portion can be insulating piercing jaw itself.

CLAIM 3 = (CLAIM 3 + CLAIM 2 + CLAIM 1)

3.1 - "... *each said end portion ... respective side member*".

= Each end portion is of equal thickness to the thickness of the respective first or second side member.

Dos not appear to be support for this in specification although Fig 3 (Ref No's 24 and 26 and end portions 32 and 34 (not labelled in fig 3) appear to be of same thickness).

CLAIM 4 = Multiply dependent

4.1 - “ ... *at least one indent ... wire engaging portion*”.

= The electrical terminal also has a projection that is formed in or built into each side member, the connecting longitudinal bend and the base or floor of the terminal.

The function is to increase the rigidity of the wire engaging portion and exert “*a direct counter influence through the normally projecting jaws*” when an electrical wire is pushed into the wire engaging portion, forcing the jaws apart.

Skilled person would interpret language of claims to mean that the indent or projection could be positioned on the exterior of the wire engaging portion or on the interior, even though only later embodiment (see Ref No’s 46 and 48 in Fig 2) described in specification.

INFRINGEMENT

US 7,000,000 – Document B

Same numbering as interpretation Section. Claim 1.

1.1 - Present

Doc B discloses a terminal and terminal block adapted to retain an insulated wire (Page 10/22, lines 5-6), enabling it to be connected to electrical circuitry.

The insulated wire 17 falls within my interpretation of an electrical wire and is covered with insulation – surrounded on all sides (see fig 2, Ref No. 11).

The terminal is suitable for insulation piercing connection (Page 10/22, lines 12-14: “*The motion of the rep ... with the wire*”.

1.2 – Present

The terminal ... possesses a wire engaging portion (terminal 10) that comprises a base (trunk 12) and first and second side members (14) that are connected to the base (12) by respective bends (20).

(see Figs 1 and 2).

1.3 – Present

The side members (14) extend adjacent to one another away from the base or trunk (12) (see Figs 1 and 2). The positioning or extension of the side member (14) is such that they define a wire-receiving slit (18).

1.4 – Present

Each of the side members has a wire-contacting edge (16) that is an element that will slice through or prick an aperture in the insulation surrounding the electrical wire).

The wire-contacting edges (16) of the respective side members (14) are clearly directed toward each other (see figs 1 and 2) and are identical to one another.

1.5 – **Present**

Each wire-contacting edge (16) has a bevelled corner (26) at one end for receiving and slicing the surrounding insulation of the wire.

See page 11/22, lines 5-6: “Each edge 16 ... of the wire”.

1.6 – **Present**

The wire-receiving slit or gap (18) exists between the edges (16) having the bevelled corners (26).

The wire receiving slit “*is narrower than the diameter of any wire for which the terminal is designed*”. (See Page 10/22, lines 27-28).

Inherent that wire-receiving slit is slightly narrower than conductor of the insulated wire – otherwise the edges would only slice through the insulation in part and would not be in electrical engagement with the wire.

1.7 – **Present**

The edges (16) of the side members (14) slice through the surrounding insulation of the wire (see page 11/22, lines 5-6) and makes electrical contact (direct contact) with the conductor part of the wire (Page 10/22 lines 13-14: “Edges of the slit ... electrical contact with the wire”).

It is clear from Page 10/22, line 12-13: “The motion of the top ... in the terminal” that the wire is moved sideways from its axis into the slit 18 – “forced into the slit.”

Features 1.1 – 1.7 all present → Claim 1 in infringed.

CLAIM 2

2.1 – **Present**

Document B discloses the rounded edge corner 22 (between side member (14) and wire-contacting edge (16) – end portion of insulation piercing jaw) “*forms an angle at greater than about 90 degrees with the plane of opposed edges 16*”. (Page 11/22, lines 2-3).

From Fig 2, the angle appears to be only slightly greater than 90 degrees – thus falls within my interpretation.

However, would advise to get a specimen of alleged infringing product to make sure this falls within my interpretation.

Feature 2.1 is present → Claim 2 is infringed

CLAIM 3

3.1 – **Not Present**

The edge (16) is of “*reduced thickness*” relative to side member 16 – so as to more readily penetrate the wire insulation.

Feature 3.1 not present → Claim 3 is not infringed

CLAIM 4

4.1 – Present

Embodiment shown in Fig 2 – we are told that “*upper edge 87 at terminal spring arms 14 and trunk 12 can be bent outwardly in a forming operation*” – Page 11/22 – third paragraph.

This resultant projection is formed around each side member (14), through the bends (20) and into the trunk or base portion (12).

Increases the rigidity of terminal 10a.

↓

Falls within my interpretation

Feature 4.1 is present → Claim 4, when dependent on Claim 1 or 2, is infringed.

VALIDITY

1. Novelty

Two pieces of prior art Document C and Document D (possibly prior art mentioned in Document D also).

DOCUMENT C

Claim 1

1.1 – Present

Doc C discloses an electrical terminal for connecting an electrical wire “surrounded by insulation (falls within my interpretation of “covered”) no electrical circuitry. The connection is made by piercing the insulation of the wire so that the terminal is in direct electrical contact with the conductor part of the insulated wire.

Page 14/22, lines 5-7: “*This invention ... core of the wire*”.

1.2 – Present

Doc C discloses that the terminal possesses a “*rearward*” (rearward of electrical contact 16c) wire engaging portion (terminal 10) that has a base (spring portion 16) and side members (12 and 14) that are connected to edges of the base by bends (12a and 14a), integral to the base portion 16).

See Fig 5 and page 15/22, lines 2-6.

1.3 – Present

On Page 15/22, lines 3-4 and 19-20 that the end plates 12 and 14 (side members) extend “*side-by-side in a closely spaced parallel relationship*” and that the “*electrical wire 22 is placed in V-shaped mouths 18a and 20a at slots 18 and 20* (wire-receiving channel according to my interpretation) *provided respectively in the front and back end plates 12 and 14*”.

1.4 – *Not Present*

The side members (12 and 14) have mouths (18a and 20a) that are insulation piercing jaws according to my interpretation. However, the mouth 18a of plat 12 is not directed toward corresponding mouth 20a (does not face my interpretation).

Page 15/22, lines 21 – 22.

1.5 – *Present*

The insulation piercing jaws (18a, 20a) have edge portions – “*thinned and sharpened*” to cut through insulation of the wire.

Page 15/22, lines 21-22.

1.6 – *Present*

It is clear from Fig 1 and Fig. 4 that one insulation piercing jaw (18a) is spaced from other insulation piercing jaw (20a)

It is conceivable that the distance between the jaws (18a, 20a) is slightly less than diameter of the conductor – although not expressly stated.

1.7 – *Present*

The mouths (18a, 20a) cut through the insulation of the wire and makes electrical contact with the conductor part of the wire (see fig 2 and Page 15/22, final paragraph).

It is also conceivable that the wire is moved sideways from its axis



as it is pushed into the mouths (18a, 20a) of the terminal 10.

Feature 1.4 not present → Claim 1 is novel

It follows that dependent Claims 2-4 are also novel.

Briefly, Doc C does not disclose any of the features of claims 2-4 in any event.

Claim 2

The spring portion 16 is perpendicular to the plates but is not an “*end-portion*” on the insulating piercing jaw.

Claim 3

Dependent on claim 2 – no disclosure of an end-portion .

Claim 4

No disclosure of an indent formed in each side member.

DOCUMENT D

Claim 1

1.1 – Present

Doc D discloses an insulation displacement contact for an electrical connector – falls within my interpretation of “*electrical terminal*” suitable for “*insulation piercing connection*” of an electrical wire.

Page 18/22, lines 5-6.

1.2 – Present

Doc D discloses that the electrical terminal has a wire-engaging portion (10,11,12) that is positioned rearward of lead contact (connection to electrical circuitry - pin).

The wire engaging portion has a base 12 and first and second side members (10,11) – See Fig. 2. In use, the first side member 10 is connected to the base by bend 24 and, from Fig. 2, second side member connected to base 12 by bend 23.

1.3 – Present

Clear from Fig 2 that side members (10 and 11) project away from the base 12 adjacent to one another (close to each other) relative to the base 12.

Clear from Fig 3 that these side members define a wire-receiving channel.

1.4 The side members (10 and 11) possesses an insulation piercing jaw (14) (steep slopes cut into insulation – as well sides facing notch 13).

Page 19/22, lines 27-29: “*The steeper slopes ... into the notch 13 ...*”

and

Page 20/22, lines 7-9: “*... the act of pressing ... a satisfactory electrical connection ...*”

The steep slope (14) of first side member 10 faces the steep slope (14) of second member (11) – See Fig. 2.

1.5 – Present

The steep slopes (14) and sides of notch (13) of the notch (13) are sufficiently sharp to cut into the insulation (25) of the wire (26)

↓

Page 20/22, lines 7-8.

↓

Inherently possesses an edge portion

1.6 – Present

The edge portions of the notch 13 are spaced apart from one another – see Fig. 2 – and, judging from Fig. 3 – this space is slightly less or the same as the diameter of the conductor of the wire – conductor squashed into space defined by notch 13 – compare with wire in Fig. 2.

1.7 – *Present*

The edge portions of the notch (13) cut through the insulation of the wire – page 20/22, lines 7-9 – to establish electrical and mechanical engagement with the conductor of the wire.

It is inherent that wire is moved laterally of its axis when pushed into notch 13.



Features 1.1 – 1.7 present → Claim 1 lacks novelty

Claim 2

2.1 - *Not Present*

No disclosure of steep slopes (14) or sides of notch (13) having an end portion at – 90 degrees to respective side members (10 and 11).

→ *Claim 2 is novel*

Claim 3 – Not present

- *Novel by dependency on claim 2.*
- At right angles to side member

Claim 4

4.1 – Not present

No disclosure of an indent formed in each side member (10,11) through bends (23,24) and into base portion (12)

Claim 4 is novel

VALIDITY

2. *Inventive Step*

The skilled person can be considered to be an electrical engineer having knowledge of electrical terminals.

The prior art that would be inputted to the skilled man is the Documents C and D plus the prior art discussed in Document D.

Claim 1

The inventive concept associated with claim 1 is that an electrical terminal has a sufficient level of rigidity that is necessary to enable the terminal to effectively pierce through the insulative sleeve of the inserted conductor.

As discussed in novelty section, all of the features of Claim 1 appear to be disclosed by Doc D. However, the courts may find that Doc D does not disclose that the sides of the notch 13 of device of Doc D does not have an edge portion that allows one to effectively pierce through the insulative sleeve of the inserted conductor.

Is this obvious?

Combining Doc D with Doc C.

Doc C specifically teaches that the insulation piercing jaws should be thinned and sharpened to provide a cutting edge.

In my view, this is sufficient motivation to the skilled man to modify the device of Doc D to thin and sharpen the steep slopes (14) and/or the sides of the notch 13 to provide a superior cutting edge.

Accordingly, it is submitted that claim 1 lacks inventive step over Doc D in combination with Doc C.

Claim 2

Inventive concept: providing an end portion on the insulation piercing jaws of the side members that is at ~90 degrees to the respective side member – improves cutting ability of insulation piercing jaw and preserves electrical and mechanical integrity of the connection.

Starting from Doc D, there is no disclosure in Doc C that would motivate skilled person to modify device of Doc D to include an end portion of ~90 degrees to the side members (10 and 11).

→ ***Claim 2 appears to be inventive with Doc D in combination with Doc C.***

Claim 3

Inventive by dependency on claim 3.

Inventive concept: maintaining thickness of end portions as same as thickness of side members aids preservation of electrical and mechanical integrity of the connection.

This feature is known from Doc D. However, if combined with teaching of Doc C, Doc C teaches that edge portion of insulation jaw (which would necessarily be on end-portion feature of claim 2) should be thinned and sharpened.

↓

Possibly works against combination of Doc C and Doc D to knock out Claim 3.

Claim 4

Inventive Concept: Increased rigidity of terminal → aids preservation of electrical and mechanical integrity of connection as well as helping creation of electrical connection.

Starting from Doc D – no disclosure of this feature in Doc D. No disclosure of feature in Doc C either.

→ ***Claim 4 is inventive over Doc C and Doc D alone or in combination.***

Argument in favour of inventiveness of Claims 1-4 → age of documents C and D – why has nobody thought to combine these documents before.

Commercial success: obviously better product than what is already on the market (including those of Docs C and D).

SUFFICIENCY

Generally, no major issue identified. No support for feature of Claim 3 in the specification.

AMENDMENT

Introduce feature of Claim 2 into Claim 1. Resultant claim is novel and inventive but dependent on construction of courts to determine if “perpendicular” would be construed purposively.

↓

Should be → ***thus both embodiments of Doc B infringe.***

Introduction of feature of Claim 4 into Claim 4. Novel and inventive claim but only embodiment shown in Fig 2 will infringe. Find out which product US competitor will be launching in the UK if possible.

ADVICE

- Claims 1, 2 and 4 are infringed. Claims 1 and 2 by both embodiments. Claim 4 by 2nd embodiment.
- Claim 1 appears to lack novelty over Doc D and also lacks inventive step over Doc D alone or in combination with Doc C.
- Amend Claim 1 to include Claim 2 or 4 – competitor will infringe.
- First – ask US company for extension of time to consider.
↓
- If not, US company can seek declaration of non-infringement from Courts and seek revocation even before launching
- If launches – interim injunction but Courts more likely to grant early trial date. Very expensive and no guarantee of success.
- Consider licensing agreement with low royalty.

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SAMPLE SCRIPT B

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Construction

Section no.s here will be referred to throughout (1.1, 1.2, etc)

1. CLAIM 1

- 1.1 *"An electrical terminal for insulating piercing. . . insulation,"*
Sets the field of the claim. Has to be an *"electrical terminal"* i.e. conductive and *"for"* = *"suitable for"*, therefore has to be able to form a piercing connection, i.e. has to be able to pierce an insulation.
- 1.2 *Comprising* = not exclusively having. . .
- 1.3 *"a rearward wire engaging portion"*
Rearward of what? In description the intermediate portion 14 (to which the claim relates) is *"rearward"* at *"a forward portion 16"*. The portion 16 contains the pin for connection. Hence rearward means *"rearward at the connector"* – but this obviously depends on the orientation of the device. As such it simply must mean *"to one side of a connector"* i.e. to one side (i.e. not central to) of a connector – only logical meaning.
- 1.4 *"Comprising a base"*
Base has not special meaning here- it's simply something that other things are connected to (i. e something the side members are connected to.
In the spec corresponds to a *"floor 28"*, which has no particular functions over simply connecting the side members together. Hence broad construction.
- 1.5 *"And first and second side members"*
-i.e. they have to be at the sides of the base like members 24, 26. I construe as *"members located at sides at the base"*.
(Do not have to be opposite sides)
- 1.6 *"Connected. . . by respective bends"*.



Bends could mean bend out of plane i.e.

and/ or in plan

The bends 50, 52 are out-of plane, and have to be able to support the indents of C4 and shown at 46, hence the skilled person would think the patentee was claiming out-of plane bends only. I construe as such.

- 1.7 *"Said. . . side by side and defining a wire receiving channel"*

“Side by side” takes its ordinary meaning; i.e. they must be near each other, in order to perform the function at defining some kind of space in between into which the wire can be received.

1. 8 “Each . . . having at least one. . . jaw”

“at least one”= one or more. (Ordinary meaning).

“insulation piercing jaw” i.e. the jaw has to be able to pierce insulation per p6, l 12.

“jaw” has no special meaning other than there must be at least two, but this is implicit because each 1st and second side member has “at least one” jaw. The embodiment has specific jaws 32, 34, 36, 38 bent relative to the side members. I don’t construe this feature as narrowing because the bent jaws are part of claim 2, which because it is dependent on C1, C1 must be broader. Hence I interpret “jaws” broadly to mean any opposing elements.

1. 9 “Directed toward a corresponding. . . members”

The jaws have to face each other per jaws 32, 34, 36, 38.

1. 10 “Each of said. . . jaws. . . edge portion. . . each edge portion. . . being spaced. . . a distance”

Defines the relative orientation of the edges of the jaws, not the jaws themselves.

The structure of the jaws is therefore only limited by the fact they have to have facing or opposing edges.

1. 11 “Slightly less than the diameter of said conductor”

i.e. must be sufficient to mechanically compress the conductor in the wire. Not really a limitation as presumably conductors come in an almost limitless range of sizes.

1. 12 “Said edge portions piercing. . .”

Reads like a method step (in an apparatus claim). The only way to tackle this is as a functional limitation – i.e. the device must operate by piercing. .

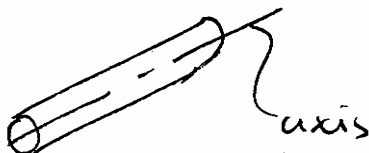
1. 13 “Through said insulation. . . to establish electrical and mechanical engagement”

i.e. the part (edges 40) that engages the conductors must be conductive.

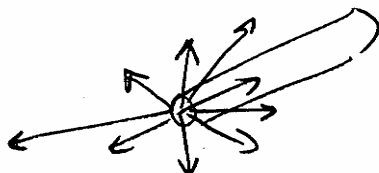
Further, the edge portions must also grip the wire “exerts a direct counter influence. . . upon the wire 66” (p6 l.19) to form the mechanical engagement.

1. 14 “as a portion. . . laterally of its axis into said. . . channel”

i.e. wire



Movement must be “lateral” to axis (i.e. any direction but along it).



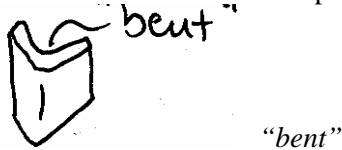
CLAIM 2 dependent on C1 only.

2. 1 “An end portion”

Of what? The example jaws 32 etc are end portions of the side members therefore I shall construe as such.

2.2 "Bent"

Narrower than "bend" as implies an action of bending => must be out-of plane per jaws 32 etc



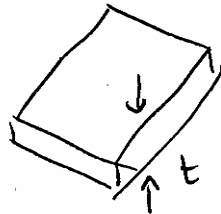
2.3 "Perpendicular to... member"

Does perpendicular mean 90°? Or does it mean "about" 90°? The embodiment is described as "substantially a right angle" (p5 l.17) and more broadly simply "in-turned" (p6 l.24). The example figs show 90°.

I think the skilled person would realise the patentee meant perpendicular in a narrow sense else he could have used broader claim language (e. g. in-turned), also the jaws at the example would not pierce very well if they were at say 80°. Hence narrow -.

CLAIM 3. Dependent on C2 only.

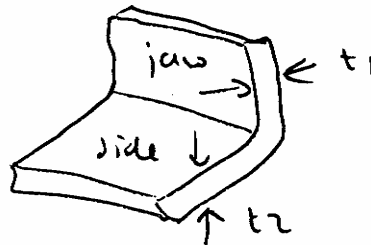
3.1 "material thickness"



meaning clear i.e.

3.2 "equal to... member"

i.e. meaning is clear.



$t_1 = t_2$

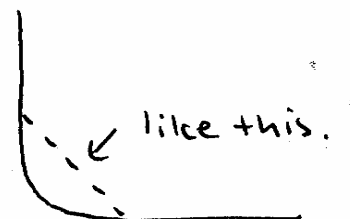
CLAIM 4 dependent on C1-C3

4.1 "at least one indent"

i.e. one or more "indents" – i.e. a discontinuity in an otherwise smooth surface (ordinary meaning as confirmed by indents 46 in fig 1). Must "extend inwardly" (p5 l.26).

4.2 "Formed in each... portion"

Spelling error; "though" should be "through"



The bend, i.e. they extend from side to end portion per 46, 48

4.3 “To increase rigidity”

Functional limitation – redundant because any indent as described could do this.

INFRINGEMENT

BHE intend to sell (=dispose of, an act restricted by S60 (1)) and presumably also import, offer to dispose of and keep in the UK products according to US7.

CLAIM 1 (re fig. 1 of US7)

An electrical terminal for insulation piercing connection of an electrical wire formed by a conductor covered with insulation. . .

{yes- 10 is “electrically conductive” (p10 l23 and is capable of piercing per p11 l5 “slicing” hence has this feature as I have construed in 1.1 above } ✓

. . . comprising a rearward wire engaging portion

{yes- the trunk and extending arms 14 engage a wire and it's to one side of a connector 31 – hence feature present under my construction 1.2/ 1.3 } ✓

. . . comprising a base. . .

{I have construed as “something side memb.s connected to” – side membs. 14 are connected to trunk 12. Hence feature present } ✓

. . . and first and second side members. . .

{yes – 2 side members 14 present because they are members located at sides of the base per 1.5 of my construction } ✓

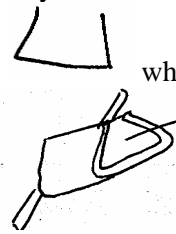
. . . Connected to edges of said base by resp. bends. . .

{yes- corners 20 bend out-of-plane hence are bends per my construction 1.6 } ✓

. . . Said side members extending side by side and defining a wire receiving channel. . .

{arms 14 to extend in the same direction (= side by side as I have construed in 1.7)

and are spaced apart and hence define a channel



which receives part of the wire (as

shown in fig 2 but applies to fig1.) => Present

} ✓

. . . Each of said side members having at least one insulation piercing jaw. . .

{yes – edges 16 are opposing elements that can pierce insulation => present under my construction pt. 1.8 } ✓

. . . directed towards a corresponding. . . jaw of other of said side members. . .

{ yes – jaws 16 are directed towards each other (p11 l3 “opposed”) and each belongs to a side mbr 14 – they face each other per my construction pt 1.9 } ✓

. . . each of said. . . jaws having an edge portion

{ yes – edge 16 is an edge of a jaw because it opposes the other, corresponding edge 16 } ✓

said edge portion being spaced from said edge portion. . . jaw a distance slightly less. . . conductor

{yes – per p10 127-28, slit 18 is defined between the edges 16 and is “narrower than the diameter of any wire” and hence able to mechanically compress the wire per my construction 1.11} √

. . . said edge portions piercing

{yes- “slicing” p11 15 is synonymous with piercing}√

though said insulation. . . to establish electrical

{yes- edges 16 conductive per my construction 1.13} √

and mechanical

{yes- gap is smaller than wire and hence exerts a gripping force per my construction 1.13 for mech. engagement}√

. . . as a portion. . . moved laterally. . . into said wire receiving channel.

{yes- as described at p 11 116-17 as the wire is moved into the slit (and hence the channel as it is moved “obliquely”) the wire is cut and gripped. Wire is not moving along axis and => is moving lateral to axis per construction 1.14} √

Hence C1 is infringed by the aforementioned acts vis a vis Fig 1. Also applies to Fig 2 because Fig 2 has all of the features of fig 1.

CLAIM 2

Figs 1 & 2 at US7 are “terminals acc. to C1”. √

. . . each. . . jaw comprises an end portion bent. . .

{yes- edges 16 as shown are bent out of plane of the arms 14 => present under my construction} √

. . . Perpendicular to said respective side member. . .

{I have construed perpendicular narrowly – US 7 states the angle is greater than 90 ° (p11 12) hence not 90 °. Feature not present} **X**

=> C2 NOT infringed.

CLAIM 3.

Figs 1 & 2 NOT terminals acc. to C2.

Edges 16 are just bent out of plane from sides 14 and therefore will have same thickness but as mentioned if C2 NOT infringed => ***C3 NOT infringed.***

CLAIM 4

Can only be infringed dependent on C1.

NO indents in fig 1

Fig 2 has edges 87 & 90 to “increase stiffness” (p11&12) but NOT indents as I have construed because they’re not discontinuities in a smooth surface nor do they projects inwardly (4.1)

=> NOT infringed.

NOVELTY

3 pieces of prior art - the simple device “notch device” per docs C & D intro & docs C & D themselves.



(i) Notch device looks like

CLAIM 1

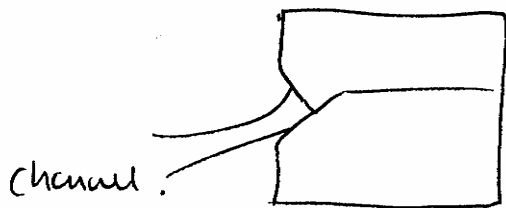
It is an electrical terminal (that's what it's used for) and makes an insulating piercing connection (“displacement” per D p18 114), it has a rearward wire engaging portion (it will inevitably be at one end of a contact per my construction 1.3) and has 1st and second side members either side of the slot (or notch)

However I have construed the side member bends as out of plane which they aren't (they're in-plane bends) and *hence claim 1 is novel over the notch terminal*.

(ii) *DOC C*

CI

An electrical terminal for. . . insulation {yes - under my construction D can conduct and does pierce – p15 122}✓ comprising a rearward {yes - it's to one side of an contact 16c per construction pt 1.3} wire engaging portion {yes- it engages the wire} comprising a base {yes- the part 16 is a base because the side parts connect to it per construction pt 1.4} and first and second side members. . . respective bends { yes, each side member is at a side of the base regardless of the fact the base is bent hence present within my construction pt 1.5, plus bends are out of plane hence fall within my construction pt 1.6}. Members 12, 14 are side by side under my construction because they point in the same direction (under my construction point 1.7) and they also define a channel 18 in which the wire is received even though it's not their outermost edges that define it.



Each member has a facing edge 18a, 20a which represents a jaw under my construction because the edge face each other and “opposing elements” can pierce insulation. (construction pt 1.8)

Each jaw has an edge portion 18a, 20a.

The jaws face each other and hence are directed towards a corresponding jaw per construction 1.9.

They are also spaced slightly less than the \varnothing of a conductor, because although the individual slots are not so narrow, they do co-operate to define a slit so spaced when the device urges the arms 12 - 14 together. To compress wire per construction 1.11.

Each edge 18a, 20a does pierce through the insulation of the wire and hence establishes electrical (because they're conductive) and mechanical (per "retained" p15 l29) contact per construction 1.13.

All features present => **C1 not novel over C.**

C2: Novel because I have construed "bent" to be out of plane and the jaws of C are planar. => **NOVEL**

C3: *Novel by virtue of dependency on C2.*

C4: *Novel – the bend 12a/14a Fig 5 has no indents whatsoever.*

(iii) Re: D

C1 It is an electrical terminal for. . . insulation because it conducts and is able to pierce (per construction 1.1).

The main part extends to one side (the top) of a connector 16 and hence is "rearward" under construction 1.3. It also "engages" the wire.

It has a base (between 12 and 24) to which the side members 10, 11 are connected by respective bends 12, 24 which are out-of-plane hence features present under construction points 1.4 – 1.6.

The side members 10, 11 are pointing in the same direction and define a channel therebetween which receives a wire 25 hence are "side by side" and "defining a channel" per construction pt 1.7.

The edges of the arms 10, 11 "cuts through the insulation 25" (p20 l7) hence the arms are opposed (if not bent - but not necessary under my construction 1.8) and directed towards each other – facing per construction 1.9 ✓

The jaws between edges of arms 10, 11 are spaced to be less than the \varnothing of a conductor (else the device would not work) feature 1.11 is present because the edges necessarily "compress the wire" (p20 l9).

The edges do pierce (p20 l7 = cuts) and establish electrical connection (primary function) and mechanical engagement (by "compress" p 20 l8) hence present under my construction.

All of this occurs where the wire is moved per Fig 2 i.e. non axially – "lateral" per my construction.

Hence all features present **C1 NOT novel over D.**

CLAIM 2

Jaws of D have no out-of-plane bends relative to side members per my construction =>**hence novel.**

CLAIM 3

Novel by virtue of C2 although thicknesses are the same (planar)

CLAIM 4

No indents at all under my construction => *novel*

Inventive Step

Claim 1 is not novel over C & D & “notch terminal”

Consider dependent claims:

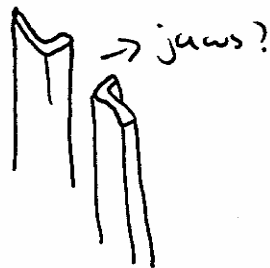
Pozzolli approach

- (i) The skilled person is the notional unimaginative technician working in the field of terminal technology.
- (ii) The common general knowledge (CGK) is the well known (frequently referenced) flat notch terminal.
- (iii) The claims have been construed above.

Starting @ Doc C

Claim 2 – missing feature is each jaw having an end portion bent perpendicularly.

Would it be obvious to modify C in this manner? No! Because doing so would orient the jaw edges to be pointing in the same direction



i.e.

This would not work.

Even if they were oriented oppositely the clamping action would



be lost as they would simply twist the wire and not clamp it.

The same applied starting @doc D.

- * BHE will infringe C1 by importing/selling (disposing) offering to dispose of and keeping US7 connectors.
- * But C1 is invalid over both C & D (not novel).
- * C2 is arguably inventive but none of C2-C4 cover the US7 terminal.

- * Alternative amendment – new claim 1 incorporating “in-turned, opposing jaws” feature of p6 l24 of description.
- * No docs have this feature => novel
- * Is it inventive?

Yes – for the same reasons as C2 plus “in-turned” is nonsensical re: the notch terminal and doc D because the side members are parallel.
- * Does it cover US7

Yes! Currently claim 2 is restricted to perpendicular, and US7 has an angle at >90° between jaws and side mbrs. “in-turned” catches any angle, whether perpendicular or not. Basis is clearly in description at p6 l24 hence not added matter a => valid amendment.
- * Client may want to consider other independent claims to claim 1 and claim 3 & 4 features to provide a wide coverage & prevent design arounds.
- * Check prior art cited in US docs to make sure we’re valid over it.
- * File for amendment as described above, providing C & D for examiner.
- * Send copy of amendment claims to BHE once they’ve been accepted (after opposition period to avoid BHE opposing amendment)
- * Negotiate with BHE – would client be prepared to licence them?
- * If not we may be able to get a preliminary injunction, *quia timet* against BHE because
 - (i) There is a serious case to be tried (valid & infringed patent)
 - (ii) Client will not be adequately compensated by damages because the infringement will drive the market price down lowering customer expectations of price permanently, and
 - (iii) BHE have yet to begin importation and hence won't be significantly damaged if injunction granted.

Client will have to make a cross undertaking for damages though.
- * Don’t tell them they don’t infringe! It will be viewed as acquiescence (at worst an implied licence) by the courts if you later try and sue them, which will not go in your favour (you may not be entitled to any remedies!)

* * * * *

2008 PAPER P6

SAMPLE SCRIPT C

This script has been supplied by the JEB as an example of an answer which achieved a pass in the relevant paper. It is not to be taken as a "model answer", nor is there any indication of the mark awarded to the answer. The script is a transcript of the handwritten answer provided by the candidate, with no alterations, other than in the formatting, such as the emboldening of headings and italicism of case references, to improve readability.

1. CLAIM CONSTRUCTION – GB2121212

* For page and line refs, I will refer to the exam page #, NOT that of the particular doc

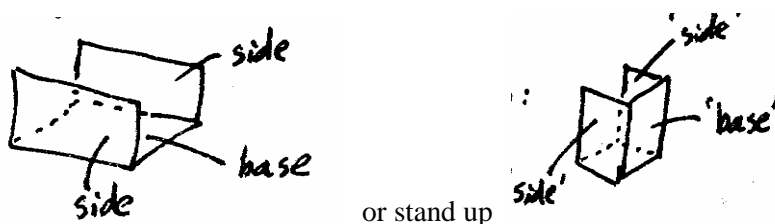
1.1 Claim 1

1.1.1 “Electrical terminal for insulation piercing connection of an electrical wire formed by a conductor covered with insulation”. ‘For’ generally = suitable for. “Insulation piercing connection” = seems term of art → any connection w/a wire formed by piercing the insulation of the wire.

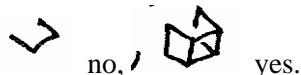
1.1.2 “Terminal comprising” = can have further features – comprising open language.

1.1.3 “A rearward wire engaging portion” – rearward compared to what? This seems a different portion to the “rearward insulation gripping portion 12” (see p5 line 2-3) as “wire engaging” not “insulation gripping”. “Forward portion 16” – can’t be this either (not forward). So, this portion must be 14, the “intermediate conductor engaging portion 14”. Portion as a whole only needs to be suitable for engaging a wire in some way.

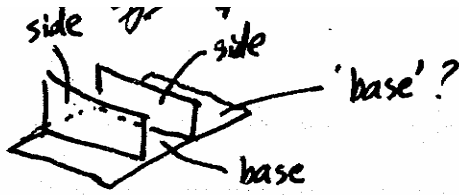
1.1.4 “Comprising a base and first and second side members” – the wire engaging portion can have other parts. “Base” and “sides” – simply defines w.r.t the others → any side of a shape can be the ‘base’ in comparison to the ‘sides’:



So, this simply requires at least three parts, a ‘base’ and two ‘sides’. Can ‘base’ be of nominal length? Seems not from description (also referred to as “floor”) – so construe the base and side members as having a significant ‘length’ ie not nearly 2 dimensional .



1.1.5 “Connected to edges of said base by respective bends” – 2 x sides must be connected to the base, otherwise not a side! What if ‘base’ extended –



Doesn't seem necessary that the very edges of the base connected. So, construe as sides connected to the base. p5 line 14 says sides "extend" from base (= floor) – so this construction seems sensible. Sides cannot be in the same plane as the base – this seems a clear English interpretation.

Do "bends" have to be curved?
Or can have straight connection?

Side members 24, 26 are described as having "longitudinal bends" p5 line 25 – but still don't have to be bent. So, will construe broadly → "bends" for side members = the portion connecting to the base, however the connection achieved.

- 1.1.6 "Extending side by side" – is description p5 line 13-14 side members are "parallel" → not language used in claim → claim deliberately broader? So construe as side members extending generally in the same direction in one plane.



include

→ included general direction of travel



general direction of travel

- 1.1.7 "Wire receiving channel" – defined by side members not floor/base as in example in description, p 5 line 15. Channel (gap between side members) must be suitable for ie wide enough to receive wire .

Does it include the slot between the jaws? Gap between the jaws is still a 'channel' defined by the side members? But the example given in description has base as part of the channel as well. Does the channel in the claims also need a base? We have shown no example without → might lack sufficiency. So, construe as requiring a base to the channel.

The base and 2 side walls must therefore together form a channel with length (not 2D like a slot). See 1.1.4 also.



So, construe 'channel' as being any space with three sides and three dimensions, suitable for receiving a portion of wire of the type for which the terminal is suitable.

- 1.1.8 "Side members having at last one insulation piercing jaw" from diagram, clear that 'jaw' does not mean both halves. So, construe as = one half of a pair of jaws. Jaws must be suitable for piercing what insulation the wire [of the type the device as a whole is for use with] has.

Side members 'having' – a separate 'portion' of the side member is the jaw. At least one jaw → can have more such parts.

- 1.1.9 "Directed toward a corresponding insulation piercing jaw of the other of said side members" so again only one 'half' of a pair of jaws needed on the other side member., "Directed

toward” – not exactly aligned? Directed “head on”, or to the side? With my interpretation of

“jaw”, clearly needs to be pretty much head on  as opposed to 
p 6, line 25 – jaws direct force from side members to wire. So, must be close enough to do this effectively (to hold the conductor → see 1.1.15 below).

- 1.1.10 “Each of said insulation piercing jaws having an edge portion” – any piece must have an edge → so is just the end ‘part’ of each jaw.

[But see 1.1.12 below]

- 1.1.11 “Said edge portion of said one insulation piercing jaw” – previously had “at least one” such jaw. Now limiting to only one? Can’t be correct → for example, illustrated embodiment has 2! So, interpret as if it reads “said edge portion of said at least one insulation piercing jaw.

- 1.1.12 “Spaced from said edge portion of said corresponding insulation piercing jaw”. From drawings (eg p8 Fig 2) seems clear that this means the jaws are slightly open. So, now the “edge portion” seems to be the bit of the ‘jaw’ nearest to the other jaw → the bits that do the “biting”, so to speak.

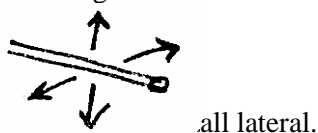
- 1.1.13 “A distance slightly less than the diameter of said conductor”. Defines how ‘open’ the jaws are (see 1.1.12 above). The conductor (core of the wire to be held) is not ‘part’ of the claim: so this should be combined as “slightly less than the diameter of the conductor of the wire which the terminal is intended to hold”. ie different terminals for different cores may have differently spaced jaws.

“Slightly” less: no proper description of what slightly is. Seems only necessary that they can grip the conductor – “mechanical engagement” later on – while still allowing it to fit in the jaws.

- 1.1.14 “Said edge portions piercing through said insulation of said wire” – again, the wire now seems to be ‘part’ of the claim. But, clear intention is to cover the terminal, not the terminal plus a wire. So, construe this as “said edge portions being suitable for piercing [the insulation of the wire which the terminal is intended for]”

- 1.1.15 “To establish electrical and mechanical engagement therewith”- not only must electricity be able to follow (otherwise not a good terminal). “Mechanical” engagement – just ‘touching’, or positive ‘holding’? From description p. 6 lines 23, 24 say that the conductor is resistantly packed. This implies some actual holding of the conductor. So, interpret this phase as requiring the conductor to be held between the edges of the jaws.

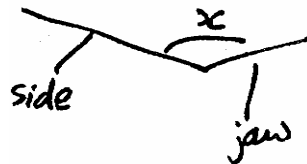
- 1.1.16 “As a portion of said wire is moved laterally of its axis into said wire receiving channel” – again, the wire with which the terminal is intended to be used. Lateral movement = any not of the length:



“into said wire receiving channel” → so that when moved, at least part of the wire ends up confined between the side members (which define the wire receiving channel – see 1.1.7 above) and the base.

1.2 Claim 2

- 1.2.1 “Jaw comprises an end portion bent perpendicular to said respective side member” – not very clear. In example, jaw 13 such as end portion. End portion of what? From drawings → end portion of the side member. Seems sensible from desc p.5 16 – 18” each jaw is formed at substantially a right angle to its respective side member”. Include range either side of 90 degrees? Only needs to be right angle ‘enough’ to grip conductor → construe “perpendicular” broadly : maybe 80 – 100 degrees of side member?



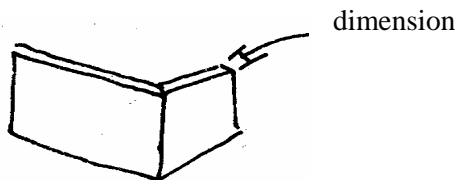
$$80^\circ \geq x \geq 100^\circ$$

End portion ‘bent’ – so can’t be separate? Construe narrowly → bent as an integral part of the side member.

1.3 Claim 3

- 1.3.1 “Material thickness” – not just “thickness”? And which dimension of side wall is thickness? End portions (ie edge portions 40) said to be relatively sharp (p.6 19 – 20) → so can’t mean thickness over whole of portion otherwise no sharpness. So, construe as meaning the thickness of the majority of the end portion.

Which is thickness? From diagrams and the fact that in cl. 2 the end portions are bent from the side member, seems to be the dimension.



1.4 Claim 4

- 1.4.1 “At least one indent” – maybe more. Indent must go in → formed through the “bend” (ie the bit connection the side member to the base) and into the “base”. Also, description p.5 line 26 “indents extend inwardly into the wire receiving channel”.

2. INFRINGEMENT

Two embodiments shown in US70 – which are they selling? Consider both. To infringe, must have all the integers of the claim.

2.1 Claim 1

- 2.1.1 Both embodiments are for the same purpose as ours (p.10 line 6 “adapted to retain an insulated wire”).

Both embodiments have a wire engaging portion – the terminals 10, 10a are for engaging wires. Both have a base and two side members (the trunk 12 and arms 14 as base and sides

respectively – my construction includes this 3D configuration). The side members are connected by bends (trunk corners 20 – although my construction does not require actual bending. The sides (arms 14) do extend side by side (my construction includes any extension in a particular common direction → the arms 14 extend from the trunk in the same general direction as seen in Figs on p. 12).

A wire receiving channel is formed : the gap between sides 14 and trunk 12 is suitable for receiving a wire (see Fig 2).

The side members (14) each have a jaw (edges 16), and they do extend toward one another (see p.10 line 25, the edges 16 are “opposed”). The edges 16 are correctly spaced so that the jaws are slightly open (p.10 line 26 – 27) “Edges 16 are spaced from one another to define a wire-receiving slit 18 which is narrower than the diameter of any wire for which the terminal is designed”). The edge portions do pierce insulation (“insulation slicing” p.10 line 25) and engage the wire electrically and mechanically (arms are springy, so will act to grip the conductor). The wire is moved into the wire receiving channel (part of wire 11 will end up between 14, 14 and 12).

2.1.2 ***So, it seems both terminals of US70 fall within the scope of claim 1 and so competitor may infringe.***

2.2 ***Claim 2***

2.2.1 My construction of perpendicular includes a range above and below exactly 90 degrees. So, the angle of jaws 16 in Figs 1 and 2 (p. 11 line 2-3) being greater than about 90 degrees may still be included. Indeed, my construction only requires perpendicular enough for force transfer, as must be achieved in US70 to grip the wire.

2.2.2 ***So , it seems both embodiments of US70 fall within cl.2.***

2.3 ***Claim 3***

2.3.1 My construction only requires a portion of the jaw to be of the same thickness as the side member.

However, in US70 “the portion of ...14 between 22 and 16 is of reduced thickness” (p.11 lines 6-7) → so none is of the same thickness as the side arm 14.

2.3.2 ***So, it seems both embodiments of US70 are outside cl.3 and activities with them would not infringe that claim.***

2.4 ***Claim 4***

2.4.1 Claim 4 depends on any of cl. 1, 2 or 3 : so may be infringed in some dependencies but no others.

2.4.2 The ‘bend’ of US70 by which ‘side members’ 14 are connected to ‘base’ 12 is/are trunk corners 20. ***The first embodiment has no indent at all in these, so does not infringe claim 4.***

2.4.3 The 2nd embodiment (Fig 2) has folds 87 to increase stiffness. However, my construction of “indent” in cl.4 requires the parts to go into the wire receiving channel. In US70 Fig 2 the parts are angled out of this area. ***So it seems the second embodiment does not infringe claim 4 either.***

3. VALIDITY – NOVELTY

3.1 W.R.T Doc C

3.1.1 Claim 1

Doc C is for same purpose as us. It has a wire engaging portion (the whole device) with a base (16) and side members 12, 14. In my construction, side members don't have to be connected to the very edge of the base, so Doc C included. Bends (clear in Fig 5 p. 16) connect in Doc C.

The side members 12, 14 extend in the same general direction per my construction. Do they define a "channel"? My interpretation says no → the slot of Doc has no length/3rd dimension to it. There is only the negligible gap between the plates 12, 14 which could 'receive' a wire.

Other features: Doc C does have a piercing jaw and it is generally directed towards corresponding jaw on the other side member. My construction requires the edges (cutting/biting) parts to point generally towards each other.

Doc C's point directly towards jaw on the same side member – but generally towards that of the other jaw. The spacing of jaws on the other side member is not discussed in Doc C, but from fig 5 it seems a lot smaller than the wire – too small for the wire to fit.

The edges can electrically and mechanically engage a conductor.

It seems Claim 1 is novel in view of Doc C.

Further, claims 2-4 seem novel over Doc C by dependency, as they must incorporate all features of cl. 1.

If my construction wrong (eg if 'channel' does not need to be 3-D, 3-sided), cl. 1 may lack novelty over Doc C so, consider other claims.

3.1.2 Claim 2

Jaws of Doc C are not bent w.r.t and side portions 12, 14. *So, Cl 2 novel.*

3.1.3 Claim 3

Material thickness – not discuss, but as jaws formed as part of side members, seems true. But cl. 3 dep on co. 2 → would only be relevant if my construction were wrong and made cl. 2 lack novelty too. *Then, cl. 3 would not give novelty.*

3.14. Claim 4

No indents at all in Doc C (except the jaws) – the notch 16d might class as an 'indent', but does not go into the 'channel'. *So, cl. 4 novel.*

3.15 Alternative Interpretation

If the curve/spring of doc C = base, then 16a and 16b could be side members and 14,12 the jaws. The hole where the spring is might be big enough for a wire → wire receiving channel.

But in this configuration there is no real way of moving the wire laterally into the channel, and certainly not so that the wire insulation is pierced by the jaws.

So, claims still seem novel.

3.2 W.R.T. Doc D

3.2.1 Claim 1

Doc D is for the same purpose as our claim.

It has a wire engaging portion (the whole of the assembled device) with a base – 18? If 18 is taken as the base, only 16 and 17 could be considered side members in my construction – 10 and 11 are not to the side of base 18 – they are in (substantially) the same plane.

The side members are connected by bends (clear from p 22 Fig 2), and extend in the same general direction (two, in fact). The channel they form with 19 could seemingly hold a wire (in fig 2 it accepts pin 27), so might class as a wire receiving channel. However, 16 and 17 clearly have no ‘insulation piercing jaws’ – these are up on 10 and 11, which under my construction cannot be considered side pieces as they are not ‘sides’ of base 19. ‘Jaws’ 10 and 11 are spaced slightly to grip the conductor (see p.20 lines 8-9 “compress the core”).

Under my construction it seems claim 1 is novel in view of Doc D. ***Further, claims 2-4 seem novel over Doc D by dependency, as they must incorporate all features of claim 1.***

However, in case my construction wrong (eg ‘channel’ does not need length, so could be 10,11 and the top edge of 23), consider dep. Claims.

3.2.2 Claim 2

The jaws are not bent w.r.t the ‘side members’ – side members would have to be 10,11 and the jaws are integral not bent out. ***So, cl. 2 would give novelty over Doc D if cl. 1 not novel.***

3.2.3 Claim 3

Dep. On cl. 2 → only consider if my construction found wrong so cl. 2 is not novel also.

Portions 10, 11 are punched into a blank with the rest of the device of Doc D (see p. 21, fig. 1). So, would naturally be of same/constant thickness.

So, cl. 3 would not give novelty if cl. 1 and cl. 2 lacked it.

3.2.4 Claim 4

Doc D has no indents in any channel. Portion 10 is intended to move w.r.t 11 to grip the wire – so wouldn’t want increased rigidity anyway. Nothing indents into the ‘channel’ between 10 and 11. So, if cl. 1 was not novel over Doc D, cl. 4 would seem to give novelty.

4. VALIDITY – INVENTIVENESS

4.1 W.R.T Doc C

4.1.1 Claim 1

Doc C does not show a wire receiving channel under my interpretation.

Would it be obvious to space plates 12 and 14, to effectively extend the gap between them to form a 'channel' to receive the wire? P.15 lines 3-4 specify that the plates 12 and 14 are "positioned side-by-side in a closely spaced parallel relationship" – this would seem to teach against extending the gap between the plates to form the 'channel'.

Furthermore, if the plates were so spaced, it would seem that the jaw parts would no longer be generally directed towards those of the other plate. So, by 'gaining' the channel feature Doc C would 'lose' the jaw feature of the present claims.

So, it seems that claim 1 is inventive in view of Doc C above. Also, claims 2-4 by dependency.

4.2 W.R.T Doc D

4.2.1 Claim 1

Doc D also does not have a channel for receiving a wire under my construction. The only 'channel' which is present (16,17,18) has no piercing jaws. Would it be obvious 1) to extend to make a channel or 2) provide jaws on 16,17,18?

There is no teaching in Doc D of spacing 10,11 further lengthways (arguably giving a channel). Further, the mode of construction (from a flat blank) would make construction of a channel w/10 and 11 at one end very difficult.

16,17 are for connection to an electrical contact, in this example a pin 27. The description of Doc D only suggests a pin – could another wire be used here? Seems so – conductor of a wire is just a sheathed pin. If a wire was to be used, it would seem obvious to combine the wire – gripping parts 10,11 with the contact 16,17,18 to form a terminal falling inside the scope of the present claims.

So, it seems claim 1 may lack inventiveness in view of Doc D.

4.2.2 Claim 2

End portions bent perpendicular – my construction only required perp. "enough" to grip the wire → so within skilled persons experimentation to, eg bend 16,17 to grip a wire therebetween.

So, cl. 2 seems obvious in view of Doc D.

4.2.3 Claim 3

Equal thickness – no discussion of this anywhere in Doc D. However, if skilled person is applying 'grip' 10, 11 to channel 16, 17, 18, would he take dimensions of 10, 11? They are pressed from a blank → naturally of same thickness. The sole members 16,17 currently tapes, but that is for pin connection. For wire connection no reason not be use width of blank as pressed.

So, cl. 3 seems obvious in view of Doc D.

4.2.4 Claim 4

Doc D has no indents, in 16, 17, 10 or 11. No where is adding these to the channel to increase rigidity discussed – indeed, in the example given the increased rigidity would make connection to the pin harder. *So, cl. 4 seems inventive in view of Doc D.*

4.3 Combination of Doc C and D

Only cl. 4 seems inventive in view of Doc D above. Doc C has no indent, no discussion of increased rigidity – indeed, Doc C relies on the “springiness” of the connection of side members 12, 14 to base 16 to grip the wire.

So, cl. 4 seems inventive in view of Doc C and D combined.

5. INTERNAL VALIDITY

Cl. 1 line 9 is a bit unclear → “at least one” maybe added? Lot of cl. 1 seems to include the wire etc in the claim → amend to remove this and clarify that it is a ‘suitable’ wire that is being referred to.

6. AMENDMENT

Cl. 4 seems novel and inventive. Could amend to this (clarifying cl. 1 as well). But → wouldn’t catch BHE infringement. Similarly, more jaws wouldn’t catch BHE.

MEMO FOR CLIENT

Attached are more detailed notes.

Infringement

Summary

- cl. 1 seems infringed (or will be when BHE sell) (see 2.1)
- cl. 2 seems infringed (or will be when BHE sell) (see 2.2)
- cl. 3 seems not to be infringed (see 2.3)
- cl.4 seems not to be infringed (see 2.4)

Who is importing/will import the BHE goods? They may also infringe.

Novelty

- cl. 1-4 seem novel in view of Doc C (see 3.1.1)
- cl. 1-4 seem novel in view of doc D (see 3.2.1)

Inventiveness

- cl. 1-4 seem inventive in view of Doc C
- cl. 1-3 seem Obvious in view of Doc D
- cl. 4 seem inventive in view of all docs.

- so, BHE may be right on cl. 1-3. Cl. 4 not infringed! (See above).

We advise getting IPO opinion on validity of patent over Doc C and Doc D (esp inventiveness). Construction and interpretation etc is a matter of opinion – so mine may not be followed by IPO/court → different conclusion.

We should do a full prior art search on our GB21 - for eg, docs cited in prosecution of US70, Doc C and Doc D? Are we novel/inventive in view of those?

Could try to get interim injunction against BHE, but unlikely to work → contested validity.

Could also get IPO opinion on infringement. If favourable – maybe offer BHE a licence? Would avoid validity proceedings on GB21, and maybe their greater size would increase client profits.

It seems that some amendment of the claims may be necessary, not only for validity but also for clarity (see 5, 6). We cannot broaden the scope of the claims by amendment, but correcting for clarity may be allowable.

If IPO opinion agrees w/me on validity (ie only cl. 4 valid), we will need to amend patent. As noted above, cl.4 does not seem to include BHE's activities, but again may be a UKIPO opinion could be sought. Trying to start infringement proceedings seems a bad idea.

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