

QUESTION PAPER REFERENCE: FD4

Claims

- 1.1 \ 1.2 \ 1.3
1. A lightweight envelope comprising a pouch portion for storing documents and a flap portion joined to the pouch portion at a fold line and for sealing the pouch portion, one of the flap portion and the pouch portion bearing adhesive such that when the flap portion is folded about the fold line to be brought into abutment with the pouch portion the portions are secured together, the flap further comprising tamper-evident means arranged to irreversibly indicate opening of, or an attempt to open, the envelope and at least located at or towards either side of the flap portion. 1.4 1.5 1.62 1.7
- 5
- 2.1
2. An envelope according to Claim 1, wherein said tamper-evident means comprises a pair of elongate continuous slits. 2.2
- 10
- 3.1
3. An envelope according to Claim 1 or 2, wherein the tamper-evident means comprises a perforated line. 3.2
- 4.1 \ 4.2
4. An envelope according to Claim 3, wherein the continuous slits and the perforated line together form a continuous line of weakness across at least a major portion of the pouch portion. 4.3
- 15
- 5.1 \ 5.2
5. An envelope according to Claim 1, wherein the adhesive is a continuous strip of adhesive, which extends across a major portion of the said one of the flap portion and pouch portion. 5.3
6. An envelope according to Claim 1 formed from paper, paperboard or cardboard. 6.1 6.2

Construction

Construction

Claim 1

- 1.1 - 'A lightweight envelope'
- sets the scene, independent apparatus claim
  - light relative to what?
  - envelope = housing for holding documents
  - most envelopes fabricated from paper or paperboard, reinforcing cardboard – p3, ln 2-5
  - lightweight = fabricated from paper having a basis weight of 80 gsm or less – p3, ln 15-16
  - but claim 6 appears to contradict this as says could be made of paperboard or cardboard – which are heavier than 80 gsm p4, ln 7-8 – may be made of heavier paper, or from cardboard or paperboard, both of which have basis weight >150 gsm

The skilled person would then not interpret 'lightweight' narrowly as otherwise claim 6 does not make sense- would use broad interpretation.

- envelope must be suitable for delivery through the mail – p3, ln 5
- must include tamper-evident envelopes – p3, ln 1

∴ 1.1 = An envelope for holding documents

1.2 = 'Comprising... storing documents'

1.2.1 - comprising = including, but not limited to

1.2.2 pouch portion = for holding documents to be transmitted – p3, ln 5-6, must have cavity for receiving documents

1.2.3 – for = suitable for

1.2.4 storing – is this different to holding or receiving?

p4, ln 34 = suitable for retaining documents – this is function of 'pouch portion'.

∴ 1.2 = including, but not limited to, a body having an opening suitable for retaining documents therein

1.3 – 'and a... the pouch portion'

1.3.1 – flap portion = a flap, term of art

1.3.2 'joined to'

- does this mean that the flap has to be attached to the body of the envelope, or can the flap be integral to the envelope?

In Fig 1+2 flap = integral – delimited by a fold line from the body of envelope – p4, ln 12-14

1.3.3 'for sealing the pouch portion'

- function of flap is to close the opening in the body of the envelope.

flap portion can be rotated about fold line to bring the flap portion into facing relations with the pouch portion – p4, ln 13-14, p4, ln 35 – p5, ln 1

∴ 1.3 = envelope has a flap delimited from the body which retains the documents by a fold line, wherein the flap can be rotated about the fold line to close the opening in the body

1.4 'one of... bearing adhesive'

Does this mean that adhesive is only applied to either the flap OR the body, but not both?

No – adhesive may be applied to both flap and body – p3, ln 29 + p4, ln 3 – see features 2a + 3a in Fig 1+2 – p7

∴ 'one of' = at least one of

- can the adhesive be any kind of adhesive? p5, ln 19-21 = essential that adhesive not susceptible to becoming tacky in, e.g. presence of steam –

BUT this is only mentioned on the specific example, not in statement of invention ∴ skilled person would not view this as essential to invention

adhesive = any suitable kind for securing flap to body (see 1.5).

∴ 1.4 = at least one of the flap and the body of envelope having an adhesive applied thereto

1.5 – 'such that... secured together'

abutment = facing relations – p4, ln 14 + p5, ln 1  
= brought into contact

secured together = thereby to seal the flap to the body – p5, ln 2-3

must resist a reasonable amount of force when sealed together – p5, ln 10

∴ 1.5 = the adhesive is applied such that when the flap contacts the body of envelope the flap and the body are sealed together

1.6 'the flap... envelope'

further comprising = including, but not limited to

the flap – lacks antecedence – construe as flap portion

tamper-evident means – must include, but be broader than the slits and/or perforated line in claims 2 to 4 – means = at least one

function = to provide evidence of attempt to open the envelope – p5, ln 13-14 = visible evidence

evidence = visual clue – p3, ln 22

irreversibly = the visual clue cannot be un-done – cannot go back to original state, otherwise the potential tamperer could erase indication of unauthorised opening = permanant visual clue

opening envelope = remove the flap from the body – p5, ln 9-14 – to gain access to docs retained therein

means = a broad term, anything capable to performing the required function

∴ 1.6 = the flap includes at least one means operable to provide visual clue of an attempt to separate the flap from the body so as to gain access to the documents contained in the envelope, wherein the visual clue is permanent.

1.7 'and... flap portion'

slightly ambiguous = the means are located either side – does this mean that a tamper means is located at, or towards, each side of the flap?

Are more than one means required?

No – single tamper-evident means is within scope as can comprise just single perforated line – p5, ln 15-16

∴ still = at least one means

includes more than one means, each means located at a respective side of the flap – see slits 5a, 5b

∴ 1.7 = wherein the at least one means is positioned, at or near to each side of the flap

Claim 2

2.1 = includes all the features of claim 1 + the following

2.2 = 'wherein said... slits'

comprises = includes but not limited only to

a pair = at least two, could be more than one pair

elongate = longer than they are wide

continuous = not perforated or broken

slit = a cut – does it extend all the way through the flap or just partially?

Appears to extend all the way through the flap

∴ 2.2 = wherein the at least one means includes at least two unbroken (not perforated) cuts extending through the flap, the cuts being longer than they are wide.

Claim 3

3.1 = includes all the features of claim 1 or all features of claim 1+2 + the following

3.2 'wherein... line'

- the dependency suggests that the perforated line may be used in combination with the pair of slits – or as an alternative – this is supported by p5, ln 15-16 + Fig 1+2.

perforations = punctures or holes which extend at least partially through material = broken in comparison to continuous slits

∴ 3.2 = wherein the at least one means includes at least one broken line of holes in the flap

#### Claim 4

4.1 = includes all the features of claim 1+2+3 or includes all the features of claim 1+3 + the following

- construe as claim 2 dependency essential

4.2 'wherein... line of weakness'

antecedence problem – the continuous slits are only recited in claim 2 and claim 3 does not have to depend on claim 2 – amend

does and/together mean both line + slits have to be present?

cannot find basis for phrase 'line of weakness'

Think that claim 4 requires both the slits and the perforated line

( The slits + the perforated line extend across most, if not all of the flap portion – p3, ln 27-28 ∴ pouch portion appears to be an error – see Fig 1+2 – construe as flap portion. ) 4.3

Line of weakness = flap preferentially tears along this line -

∴ 4.2 = wherein the at least two cuts and the broken line of holes form a line of weakness along which the flap preferentially tears

4.3 (see above)

∴ = wherein the line of weakness extends across most, if not all of the flap from one side of the flap to the other side because this is what is shown in p10 and a single line of weakness must join the two slits/means which are positioned at each side of the flap.

#### Claim 5

5.1 = includes all the features of claim 1 + the following

5.2 – 'wherein... adhesive'

continuous strip = unbroken line – p4, ln 24 + ln 32

∴ = wherein the adhesive applied to at least one of the flap and body is an unbroken line of adhesive

5.3 'which... pouch portion'

major portion = see 4.3

∴ = wherein the at least one unbroken line of adhesive extends across most, if not all of the flap and/or body

### Claim 6

6.1 – includes all features of claim 1 + the following

6.2 – formed of = fabricated at least partially of – can be made of combination of materials p3 ln 1-8 + p4, ln 6-7

∴ = the envelope is fabricated at least partially from paper, and/or paperboard, and/or cardboard.

**MARKS AWARDED 15**

### **Infringement**

#### Infringement

Consider infringement of Envelopes-4-U product – Doc B

✓ = feature present            X = feature not present

#### Claim 1

1.1 ✓ is an envelope for holding documents – p8, ln 1-2

can be made of all standard materials including lightweight paper – p9, ln 15-18

1.2 ✓ includes an envelope body – presumably body has opening as shown in p10, assume suitable for retaining documents

1.3 ✓ envelope has flap – p8, ln 12  
flap is delimited from body by fold line – p10+p8, ln 13-14  
flap presumably rotates about fold line to close opening in body as is secured to the body – p8, ln 12

1.4 ✓ adhesive applied to both flap and the body – p8, ln 16 in strip also have first and second blobs of adhesive applied to flap + body respectively – p8, ln 20 + ln 22-33

1.5 ✓ the adhesive strips cause the flap to be sealed to the body when the flap

engages ∴ contacts the body – p8, ln 16-18

Also, the first blob of adhesive contacts the body + the 2<sup>nd</sup> blob contacts the flap when flap contact the body – this provides a more robust adhesion than the strips ∴ also seals the opening in the body – p8, ln 26-30

- 1.6 ✓ the flap includes a pair of parallel slits extending from the edge of the flap – p8, ln 12-13

The slits tear before the seal of the adhesive strips is broken ∴ = means of providing visual clue (ie. tear) of an attempt to separate the flap from the body so as to gain access to documents in envelope – p9, ln 5-8

The first blob on the flap is also a means of providing visual clue of attempt to separate flap from body as it changes colour under tensile load – p9, ln 1-4

The second blob is not provided on the flap – but arguably it is when the flap contacts the body when closed - ∴ may also be means – p8, ln 21-28

- 1.7 ✓ each of the slits are positioned near a respective side of the flap – p10 + p8, ln 12-13 – edge of flap = side

The first blob is, when envelope closed + open, positioned near the slit ∴ also near the edge – p10

The second blob is on the body not the flap when the flap is open – but is positioned near side of the flap when the flap is closed

first + second blob also meanS

∴ claim 1 is infringed

### Claim 2

- 2.1 ✓ see above

- 2.2 ✓ the means includes two slits = cuts which are unbroken + appear to extend through the flap – slits are longer than they are wide – p10 + p8, ln 12-15

∴ claim 2 is infringed

### Claim 3

- 3.1 ✓ see above

- 3.2 X no broken line of holes in the flap

∴ claim 3 is not infringed

#### Claim 4

- 4.1 X - does not include all the features of claim 3
- 4.2 X does not have a broken line of holes
- 4.3 X the line of weakness = both slits, but the slits extend across less than two thirds of the flap and from the top of the flap towards the fold line, not from one side of the flap to the other – p10 + p8, ln 13-15

∴ claim 4 not infringed

#### Claim 5

- 5.1 ✓ see above
- 5.2 ✓ the strips of adhesive applied to the flap + body are unbroken lines = continuous – p10 + p8, ln 16

A blob ≠ an unbroken line of adhesive so the first and second blobs do not satisfy 5.2

The presence of the blobs does not turn the strips into a broken line as this is a different adhesive

- 5.3 ✓ p10 the strips extend across most of the body and the flap  
p8, ln 18-19 – strip of adhesive on flap extends between slits

∴ claim 5 is infringed.

#### Claim 6

- 6.1 ✓ see above
- 6.2 ✓ p9, ln 15-18 – fabricated from usual materials including paper, paperboard, cardboard

∴ claim 6 is infringed.

**MARKS AWARDED 12.5**

#### **Novelty**

#### Novelty

Both Doc C + D are full prior art against the clients patent



## Doc C

- 1.1 ✓ provides envelope – tamper detection envelope which is capable of holding documents – p11, ln 1-3
- 1.2 ✓ includes body formed of panels 11, 12, 14,15 – has opening for retaining + receiving documents as shown in Fig 2 on p13 – p11, ln 33 – p12, ln 8
- 1.3 ✓ has envelope closure flap 18 – which is delimited from the body of envelope by fold line 19, - p12, ln 2-3

The flap 18 can be rotated about fold line 19 to close the opening in the body – Fig 3 p13 + p12, ln 13.

- 1.4 ✓ strip of adhesive 22 is applied to either the rear panel 12 of the body or the flap 18 – p12, ln 10

p11, ln 17

- 1.5 ✓ when flap 18 contacts the body 12 the flap and the body are sealed together – p12, ln 8 + p11, ln 27
- 1.6 ✓ the flap 18 includes pattern of slits for weakening flap + making it tamper detectable p12, ln 4-6 ∴ pattern of slits produces visible evidence of attempt to separate flap 18 from body 12 – p12, ln 18-19 – Fig 4 visual clue is permanent – the connectors 24, 27, 28 cannot be reconnected

Fig. 5 – p12 ln 33-35

- 1.7 ✓ the pattern of slits 23,25 extends from near one side of flap 18 to the other – p14, Fig. 4 + p13, Fig 1+2

Also the slit 30 is located at a free edge 31 of flap + encourages breakage of connectors 24, 27, 28 – p12, ln 30-32 + ln 37-39

∴ claim 1 lacks novelty over Doc C

## Claim 2

- 2.1 ✓ see above
- 2.2 X the flap 18 only includes a single unbroken slit 30, which is longer than it is wide

the slits 23 and 25 of the pattern are broken ∴ not continuous

Claim 2 is novel over C

## Claim 3

- 3.1 ✓ includes all features of claim 1 – but not claim 2
- 3.2 ✓ the means include a pattern of broken lines of holes in the flap 18 – Fig 4 + p12, ln 14-30

∴ claim 3 lacks novelty over C

#### Claim 4

- 4.1 ✗ includes all feature of claim 1+3 but must include claim 2 for antecedence
- 4.2 ✗ only have one cut 30 but it and line of holes/perforations 25 do form line of weakness along which flap preferentially tears – p12, ln 37-38
- 4.3 ✓ due to the pattern 23, 25 of holes the line of weakness does extend from one side of the flap 18 to the other – Fig. 2

∴ claim 4 is novel over C.

#### Claim 5

- 5.1 ✓ see above
- 5.2 ✓ adhesive strip 22 applied to either flap 18 of body 12 is an unbroken line of adhesive – p12, ln 11-12 + fig 2, p13
- 5.3 ✓ unbroken line of adhesive 22 extend across most of body 12 – see fig 2 p13

∴ claim 5 lacks novelty over C

#### Claim 6

- 6.1 ✓ see above
- 6.2 ✓ formed of paperboard or cardboard  
p11, ln 33

∴ claim 6 lacks novelty over C

#### Doc D

- 1.1 ✓ envelope for holding documents p15, ln 27-28, p17, ln 10
- 1.2 ✓ envelope comprises pouch 2 = body having an opening 3 for receiving/retaining documents – p17, ln 10-11
- 1.3 ✓ envelope has flap 4 delimited by a fold line 5 from the body 2, the flap 4 can be rotated about fold line 5 to close the opening 3 in the body 2 as shown in Fig 1 – p19 – p17, ln 11-13

- 1.4 ✓ flap 4 has adhesive applied to bonding area 6 – could be alternatively applied to outer surface of body – p17 ln 14-20.
- 1.5 ✓ adhesive is for bonding against the body ∴ once flap 4 contacts the body 2 the flap is secured + sealed to the body – p17, ln 15-18
- 1.6 ✓ flap comprises weakening line 8, 9 comprising notch 9 and pre-cut dotted line 8 – p17, ln 21-23 + ln 27-32

- this allows the flap to be opened along the line ∴ provides visual clue of when envelope was opened – p18, ln 5-11 = permanent

can also include frangible portions 10 – but these are not provided on the flap 4 in example but they can be – p18, ln 25-26

frangible portions leave visible clue when attempt made to separate flap 4 from body 2 – p18, ln 29-33

cannot be reattached – p18 ln 24 ∴ permanent

- 1.7 ✓ notch 9 + holes 8 positioned at or near either side of the flap 4 when frangible portions 10 are on the flap 4 presumably also extend from near one side to the other – Fig 2 p19

∴ claim 1 lacks novelty over D

### Claim 2

- 2.1 ✓ see above
- 2.2 X only one unbroken slit or notch 9 – p17, ln 33-34 but it is formed at edge of side of flap – p17, ln 31

the tabs 10 are not slits extending through the flap – glued onto the flap

∴ claim 2 is novel over D

### Claim 3

- 3.1 ✓ includes all features of claim 1 but not claim 2
- 3.2 ✓ the means includes line of pre-dotted holes 8 – p17, ln 28-29

∴ claim 3 lacks novelty over D

### Claim 4

- 4.1 X includes all features of claim 1+3 but not claim 2

- 4.2 X don't have at least two cuts – only one 9 – but 9 + holes 8 do form a line of weakness along which the flap preferentially tears – p17, ln 28-30 + p18, ln 4-9
- 4.3 ✓ the line of weakness 8, 9 extends between side edges 4a, 4b of the flap – p17, ln 22-23

∴ claim 4 is novel over D

### Claim 5

- 5.1 ✓ see above
- 5.2 ✓ adhesive film applied to 6 is an unbroken line of adhesive – Fig. 2 + p17 ln 16-17
- 5.3 ✓ adhesive film extends across most of flap 4 – see fig. 2

∴ claim 5 lacks novelty over D

### Claim 6

- 6.1 ✓ see above
- 6.2 ✓ doesn't specify but it is inherent as these are the traditional materials for fabricating envelope

∴ claim 6 lacks novelty over D

In summary, claims 2+4 are novel over C+D according to my construction but claims 1, 3, 5, 6 lack novelty over C+D

**MARKS AWARDED 21.5**

### **Inventive Step**

#### Inventive Step

- use the pozzoli test
- The skilled person is a manufacturer or designer of envelopes – see p3, ln 1

The skilled person is not necessarily very familiar with the paper market – p2, ln 16-19

Doc C is part of the CGK of the skilled person as 'everyone has used them for years' and very common across Europe – p2, ln 26-28

might not include D in the CGK – although it is quite old no indication it is well known in the field – not patent savvy – p2, ln 32

## Claim 1

Doc C = good starting point as part of CGK and specifically directed to tamper detection envelopes – p11, ln 1-3.

According to my construction the inventive concept of claim 1 is the means which provide a visual clue of when an attempt is made to separate the flap of the envelope from the body to gain access to documents – features 1.6 + 1.7.

These features are disclosed in C by the pattern of slits 25, 26 and the slit 30 –  
∴ lacks inventive step

Also disclosed in D by the measuring line 8-9 although this is suggested to be used as an easy way of opening the envelopes – still provides a visual clue of attempt to remove the flap most likely.

'lightweight' in feature 1.1 of claim 1 could be construed more narrowly as made of paper having a basis weight of 80gsm or less – p3, ln 15-16

advantage of a lighter envelope = optimum balance between ease with which paper tears and the weight of the envelope – p3, ln 16-19

p3, ln 18-19 suggests that lighter paper is not generally used in envelopes – which may indicate an inventive step

Doc C teaches that the envelope could be made of paper, cardboard or the like – p11, ln 5-6 – doesn't make any mention of lightweight paper + particularly teaches the use of cardboard which is heavier than 80 gsm.

Doc D also does not teach the use of lightweight paper

∴ no motivation from C or D to amend C or D to use paper weighing less than 80gsm = inventive.

## Claim 2

the inventive concept of claim 2 is that the tamper-evident means comprises at least two elongate continuous slits

According to my construction this is novel BUT DoC discloses that slit 30 could be located at either free edge – p12, ln 39, to facilitate opening the flap ∴ it would be obvious to the skilled person to provide the slit on both ends to provide easier opening from either end = simple workshop modification.

∴ claim 2 lacks inventive step.  
(may be inventive due to lightweight paper)

## Claim 3

The inventive concept is that the means for providing visual clue of tampering includes at least one perforated line – feature 3.2.

Doc C discloses pattern of slits 25, 26 which are broken by connectors 24, 27, 28 to form multiple perforated lines

Also Doc D has line of pre-cut dots 8 – perforated line

∴ claim 3 lacks inventive step

(may be inventive due to dependency on lightweight paper)

#### Claim 4

inventive concept is that perforated line + at least two slits provided together to form unbroken line of weakness along which flap preferentially tears – the line extending across, or nearly, from side to side of flap.

This is taught by D except only one slit 9 is provided.

This is taught by C except only one slit 30 provided – as the line of pattern of slits + slit 30 does extend from one side of the flap to the other.

As stated above = motivation to from C add an extra slit on the other side of the flap  
∴ this claim lacks inventive step.

#### Claim 5

Inventive concept is continuous strip of adhesive extending across flap/body

This is taught by C+D ∴ lack inventive step

#### Claim 6 – inventive concept = material

These are all known materials for envelope see p3, ln 1-8 ∴ not inventive

∴ claims 1-5 may be inventive due to lightweight in claim 1 – claim 6 appears to contradict this

**MARKS AWARDED 12**

### **Sufficiency**

#### sufficiency

Need to correct the antecedence problem with claim 4 – must depend on claim 2

also error in claim 4 – cornet pouch portion → flap portion

no major issues

**MARKS AWARDED 0**

## **Amendment**

### Amendment

may need to amend – depends on construction of 'lightweight' in claim 1

→ could explicitly recite made of paper weighing less than 80gsm – would that be infringed still? - likely to only catch the lighter grade paper versions of infringers product – p9, ln 16

- could amend to say adhesive on both the flap and the body – improves adhesion but likely lack inventive step = obvious

- would have to delete claim 6 as contradicts amended claim 1

**MARKS AWARDED 2**

## **Advice**

### Advise

claim 1, 2, 5, 6 appear to be infringed by the Envelopes-4-U envelope

your patent was granted in Sept 2016 so can be enforced immediately – should send LBA renewal fee will be due 31 January 2017 – can use grace period until July 2017 – make sure this is paid to prevent any third party rights

depending on construction of 'lightweight' in claim 1, claims 1-6 may lack novelty and/or inventive step over C+D

- check construction with person skilled in field of envelopes – not paper
- MODIUK of envelopes-4-U envelopes will infringe claims 1, 2, 5, 6
- the press release = offer for sale which is infringing
- suggest buy one of Envelopes-4-U envelopes – ideally all of the range – and test the weight of the paper
- could amend claim 1 to specify weight of less than 80 gsm + delete claim 6
- might be easy to design around though
- as Envelopes-4-U only just on the market (launched 3 months ago) could apply for interim injunction

good case as you have balance of convenience + more established on market

- could amend claims during infringement action – speed things up but risk getting less damages – only partially valid
- check accuracy of translation of D into English
- as envelopes-4-U started by an ex-employee check the employment contract – may be breach of contractual duty + confidence to you as employer – review
- but as employee was head of sales, invention not made in course of normal duties – but may have had special obligation as it a senior position – need to check – then company would be the first owner
- Did employee assign invention over to you?
- assess who first owner + current owner of inventions
- Likely the Envelopes-4-U have a patent application to the special colour changing adhesive + use on envelope – seems new + inventive
- this new adhesive may be why clients prefer their product – could perhaps try to cross-licence as they have the better product – save cost of litigation – profits might not rebuild otherwise.
- remedies for infringement = injunction, declaration of infringement, damages or account of profits, delivery up or destruction of infringing goods.

**MARKS AWARDED 5**