

Examiner's  
use only

CLAIMS

1. A flying disc toy having aerodynamic properties so that, when tossed and simultaneously rotated, it will fly in a stable manner, the toy comprising: a disc-shaped body portion (12) of flexible sheet material; a flexible annular frame (16) attached to the periphery of the body portion, the frame being made of plastics material having sufficient elastic memory to be shape-retaining and to stretch the body portion into the disc-shaped configuration, yet being pliable so that the toy can be folded and/or crumpled for storage; the frame being formed of a ring (18) having a rim (20) to which the body portion (12) is attached, whereby the disc toy assumes an unfolded shape with an flat upper surface and a recessed undersurface so that it exhibits stable aerodynamic properties when thrown; *and wherein the rim is configured to protude such that the body portion (12) is vertically spaced from the plane of the upper surface of the ring (18).*

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15 2. ~~A flying disc toy as claimed in *claims 1-14*, wherein the body portion (12) is made of a fabric on which an advertising or like message (14) may be readily imprinted as by silk screening or other processes.~~

Keep – do  
not delete

16

8 3. A flying disc toy as claimed in claims 1-7, wherein the body portion (12) is made of a plastics sheet material.

3 4. A flying disc toy as claimed in ~~any preceding claim claim 1 or claim 2~~, wherein the body portion (12) is sewn or glued to the rim.

9 5. A flying disc toy as claimed in any preceding claim, wherein the ring is formed as an annular tube.

10 6. A flying disc toy as claimed in any preceding claim, wherein the frame is made from an elongate strip of vinyl material which is cut to a predetermined length, a plug being provided to secure the open tube ends of the ring together in order to form the frame.

12 7. A flying disc toy as claimed in ~~any preceding claim~~ *claims 1-9*, wherein the frame is made from an elongate strip of vinyl material which is cut to a predetermined length, the ends thereof being glued or heat-welded together in order to form the frame.

13 8. A flying disc toy as claimed in any preceding claim and weighing no more than 120g.

2. *A flying disc toy as claimed in claim 1, wherein the body portion (12) is folded over and attached to the rim (20).*

4. *A flying disc toy as claimed in claim 3, wherein the body portion (12) is stitched to the rim (20) such that the stitching is on the inside of the rim (20).*

5. *A flying disc toy as claimed in claims 1-4, wherein the rim (20) is integral with the ring (18).*

6. *A flying disc toy as claimed in claim 5, wherein the rim is inclined inwardly to 45° relative to the plane of disc (10).*

7. *A flying disc toy as claimed in claim 5, wherein the rim (20) is sufficiently stiff to stand generally perpendicularly from the plane of the disc (10).*

11. *A flying disc toy as claimed in claim 10, wherein the open tube ends may be disconnected to permit the disc to be dismantled.*

14. *A flying disc toy as claimed in claim 13 and weighing no more than 100g.*

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Claims

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MARKS AWARDED 27/35

Response to the UKIPO

In response to the examination report issued under S18(3) dated 18 February 2018, I request a 2 month as-of-right extension under S117B UKPA, and further request a 2 month discretionary extension on the basis that my client has suffered significant ill-health over the past several months involving several hospital stays and complete rest in between. I therefore respond within the extended deadline of 18 Oct. 2018.

Values 2

Amendments

Please delete claims 1–8 without prejudice and replace with presently filed claims 1–15.

Claim 1 has been amended to delete the word “flat” – basis in page 7 lines 14–17 – can be arched or domed. Skilled person not being presented with any new information- directly & unambiguously desirable from application. No extension of subject matter.

Claim 1 has further been amended to include feature with basis in page 5 lines 18–21 and p7 l 27-29.

Basis for dependent claims:-

Claim	Basis
2	p7 l4-6; l 22–24
3	previous claim 4
4	p7 l 4–10
5	p7 l 20-21
6	p7 l 25
7	p7 l 20–22
8	previous claim 3
9	previous claim 5
10	previous claim 6
11	p5 l 33-p7 l1
12	previous claim 7
13	previous claim 8
14	p7 l31
15	previous claim 2

Claim numbering + dependencies have been updated. No subject matter added

Clarity

Previous claim 7, now claim 12, has been corrected to be dependent on Claims 1–9.

- obvious error
- obvious correction.

Clear that inclusion of dependency on previous Claim 6 in error.

explain amend 1  
support 2

Novelty

D1 does not disclose a rim that is configured to protrude such that the body portion ..... upper surface of the ring.

Instead D1 describes a peripheral spoiler skirt that protrudes outwardly to which body fabric 20 is attached.

Claim 1 thus differs as D1 does not show or describe any vertical spacing between the body portion and the plane of the upper surface of the ring – see Fig 4 of D1 which shows the body material affixed to the ring and extending at a slight angle beyond (through plane of upper surface of ring)

D2 does not disclose the features of claim 1. D2 describes a rigid annular member as the frame of the disc. Claim 1 requires a flexible annular frame.

D1 Nov. 4  
D2 Nov. 1

Claim 1 is thus novel over D1 and D2.

Claims 2–15 are dependent on claim 1 and are novel by virtue of their dependency, at least.

dep nov. 1

Inventive Step -

Windsurfer modified by Pozzoli

Person skilled in the art (PSA) would be a designer of flying disc toys.

CGK – Frisbee; flexible flying disc on P4 L16–23 ✓ .

Inventive concept of claim 1 is that the toy has a rim that is configured to protrude such that the body portion is vertically spaced from the plane of the upper surface of the ring.

### D1

D1 differs from the inventive concept of claim 1 as D1 does not have any vertical spacing between the body and the ring.

It would not be obvious to the PSA to include this. D1 teaches that the body fabric should be stitched to other layers of fabric to form an outwardly protruding skirt 14. This stiffens the skirt while permitting the central portion to bag and billow in flight.

The skirt is noted as having a synergistic effect with the centre of the body portion by controlledly disturbing the airstream, lengthening the airflow path, and improving lift. (-p12 l 19-26; p13l35-p14l5.)

The skilled person is thus taught away from vertically spacing the body from the ring due to this synergistic effect. The air disturbance is fed from the skirt/ring section directly to the body to enhance flight. Vertically spacing the body from this locus would clearly reduce the impact of the eddies produced on the body and would detrimentally affect the lift and performance of the disc of D1.

### Inventive Step – D2.

D2 differs from the inventive concept of claim 1 as it describes the body portion 22 being connected in line with the plane of the annular member 21 (which is not a ring).

PSA would not find it obvious from D2 to vertically space the body member – and in any case would not consult D2 for solving problem of improving lift in a flexible flying disc. If for sake of argument they did, again taught away from vertical spacing as want upper surface as smooth as possible — vertical spacing would disrupt and affect aerodynamics (- p17l23-24)

D1 +D2

Both relate to same technical field – PSA would likely consult. Both teach away from vertical spacing of body from “ring” as detailed above. Additionally D2 teaches spoilers enhancing lift attached on top of frame. PSA would combine D1 + D2 and review spoiler skirt of D1 and spoilers of D2 - both taught as enhancing lift – would modify D1 with spoilers of D2.

structure 2

I.S. pa. 8

Claim 1 inventive over D1, D2, and D1 +D2. Claims 2–15 inventive by virtue of dependency.

dep claims 1

I believe this brings the claims into readiness for acceptance. Applicant requests further chance to respond if Examiner has further objections.

Yours faithfully

Mr Gallagher

Letter

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**MARKS AWARDED 22/34**

Memo to client

– Can respond; get 2 month as-of-right extension (takes to 18 Aug 2018) and request 2m discretionary extension to 18 Oct 2018. Due to your medical circumstances expect this will be permitted by UKIPO.

lateness 1

– Agree with Examiner that D1 shows features of claim 1.

– “Rim” is defined in claim 1 as “to which the body portion is attached”. Thus although “rim” of D1 different it only needs to be somewhere for the body to attach to anticipate the feature.

– Claim 1 is not limited to vinyl material, just flexible sheet material. Accordingly provided the new materials meet this, claim 1 covers them. Please advise if not flexible sheet material – but please note I have not identified basis for any other material in application so unlikely to be able to amend further – potentially just “flexible material” – should discuss.

Client memo – Amendments

- Basis in application for deleting “flat” from claim 1 so have done; now covers domed shape as well.
- No basis in application for feature of additional material/padding – would add neither and lead to further objections. D2 p 16 l12-13 hints at convex moulding (padding may equate to this). – plus D1 suggests additional fabric. If padding etc offers particularly surprising technical advantage may have some basis for new application and inventiveness argument but all docs D1, D2, own application, will be full prior art – novelty+ inv step

Amendments considered to C1:–

- (a) body vertically spaced from plane of upper surface of ring; basis p5l18-21; p7l27–29. Doc D1 has body portion extending down + beyond ring – no vertical spacing.

D2 has body fixed in same plane as upper surface of “ring” (D2 does not have a ring) – frame Novel. Arguably inventive. D1 needs extension to disturb air and improve flight; D2 similarly uses spoilers. Vertical spacing not suggested + would impact flight.

- (b) Rim inclination of 45°–90° relative to plane of upper surface of disc toy; basis p7 l 20–25

Taking 14 or 28 of D1 as= “rim” it is angled but not at 45°–90° vs disc. D2 “rim” is in the same plane as disc. May be fall back position If necessary but feels limiting + not strongest amendment at this stage– have put in as dependent claim.

- (c) Fastening of disc body to rim on inside of rim; basis p7l4–10, l22–24. Both D1 + D2 fastened on outside of rim.

This seems like a strong fall back position in event of more objections – contemplated adding this instead of (a) but your letter notes that there must be a recess at the bottom surface of the disc, which you achieve by having the vertical spacing. Have therefore amended claim 1 to include

(a).

- I have added further fall back claims that may be considered if the Examiner disagrees with my arguments on novelty and inventiveness.
- I have addressed the clarity objection.

- Examiner will review amendments and may raise further objections) or may accept (~3m or so for next communication)
- If accept, will be told date of grant - can file divisional before grant if required but I cannot see a need for this. (happy to discuss).
- Examiner will likely perform a further top-up search which may locate more close prior art that we will have to review and respond to.

why amend 3

one unclear word choice 7

broadening 3

one unclear word 2

depend. 2

further plans 2

- Note that for provisional protection purposes, an infringer must infringe both the claims as published and granted for damages to be backdated to date of publication – amendment may affect this.

Notes

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**MARKS AWARDED 20/31**

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