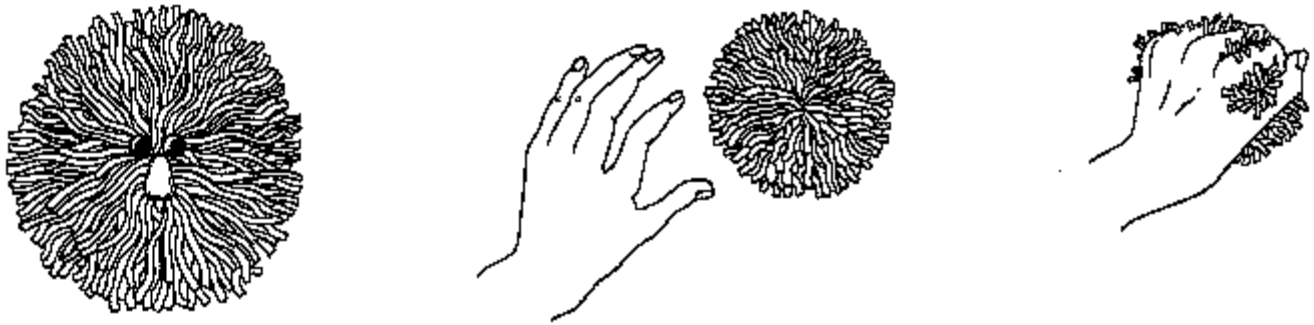
Understanding patent claims

(a) Toy ball



The invention

A ball that is fun to use, easy to catch and looks nice.



How can you protect it from imitation?

- "Fun to use" → cannot be protected
- "Looks nice" → registered design
- "Easy to catch" = technical function → patent

How to patent this invention: claim it!

~~Patent Claim: "A ball that is easy to catch."~~

Making a ball "easy to catch" is a technical problem. Problems cannot be patented – but specific solutions can! What is the **technical feature** that makes the ball easy to catch?

~~Patent Claim: "A ball comprising a **core region** and plural elastomeric **filaments** radiating from the core region."~~

You don't want anyone circumventing the patent by replacing the ball **shape** with something else!

Patent Claim: "An amusement **device** comprising a core region and plural elastomeric filaments radiating from the core region."

A prior art search will show whether the invention
– as claimed – is actually **new**.

Result of the prior art search

Your patent attorney found US 3,759,518, "Foot impellent toy", which discloses a similar invention.

United States Patent [19]
Mroz

[11] **3,759,518**
[45] **Sept. 18, 1973**

[54] **FOOT IMPELLENT TOY**

[76] Inventor: **John M. Mroz**, 623 N.E. 2nd St., Hallandale, Fla. 33009

[22] Filed: **Oct. 13, 1971**
[21] Appl. No.: **188,902**

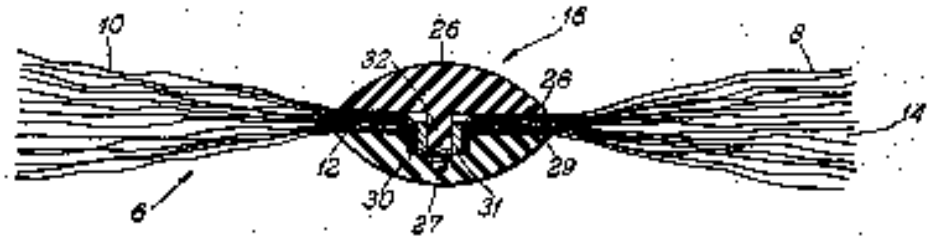
[52] **U.S. Cl.** ..... **273/106 B**, 273/58 A, 273/58 K
[51] **Int. Cl.** **A63b 65/10**
[58] **Field of Search** ..... 273/106 R, 106 B, 273/58; 15/181, 179

FOREIGN PATENTS OR APPLICATIONS
763,695 5/1934 France ..... 273/58 R

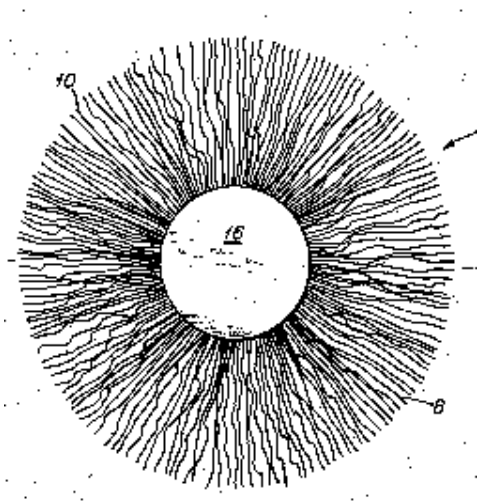
Primary Examiner—Richard C. Pinkham
Assistant Examiner—Paul E. Shapiro
Attorney—Dominik, Knechtel and Godula

[57] **ABSTRACT**

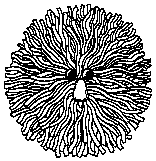
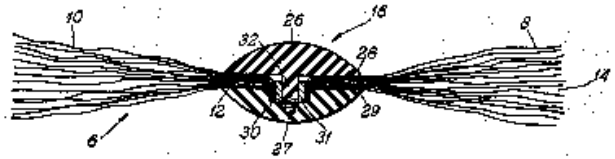
A unitary toy to be repeatedly kicked to keep the toy in play and away from play-ending ground contact, said toy having a plurality of flexible strands disposed in a



"… said toy having a plurality of flexible strands …"



Comparison of the two inventions

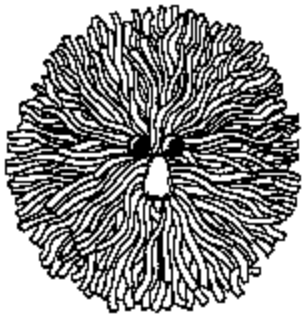
Your invention as claimed	US 3759518
"An amusement device comprising a **core region** and **plural elastomeric filaments** radiating from the core region."	"A toy of a disc-like body … … including … a **plurality of flexible strands** radiating outwardly from said … **center** … having sufficient inherent rigidity to retain the pattern of a circular plane."
	
"… radiating in **plural angularly offset planes** from the core region."	• New! • Inventive step (modification yields new function of making it easier to catch)!

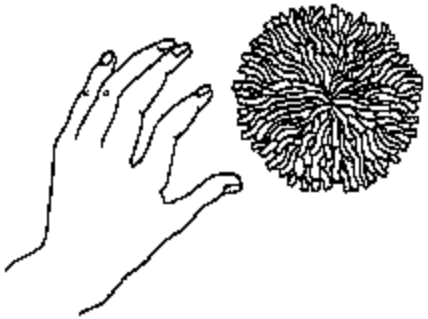
Not new

Claim to protect the invention

Claim to be filed:

"An amusement device comprising a **core region** and **plural elastomeric filaments** radiating in **plural angularly offset planes** from the core region."







Patent claims

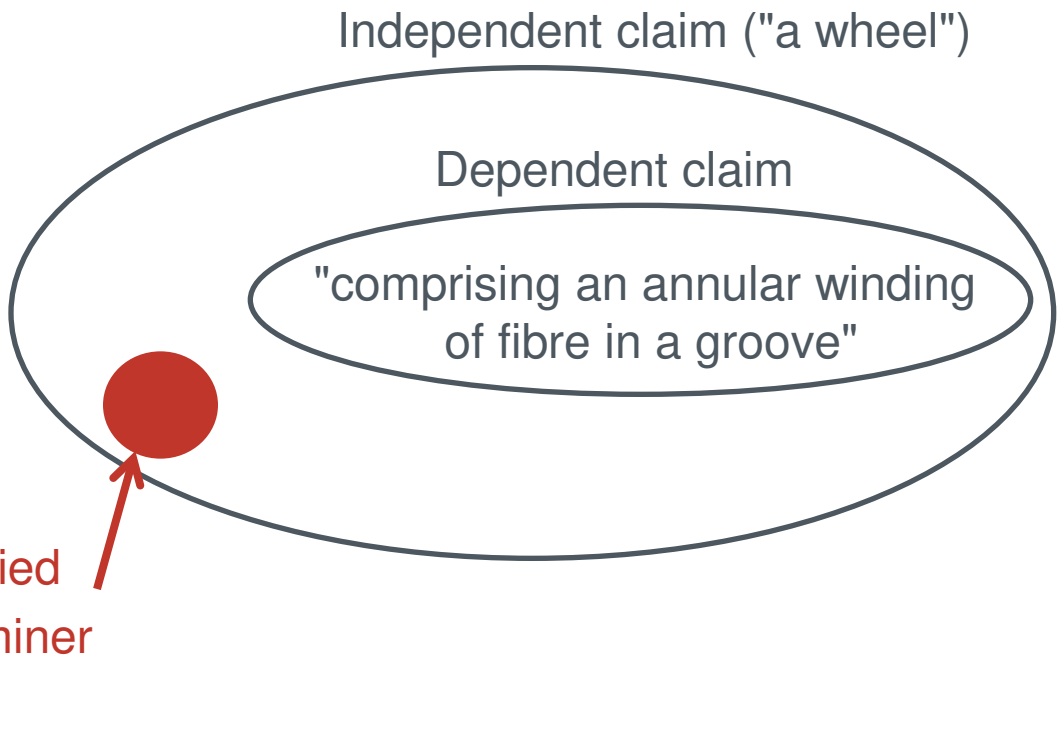
Inventor wants broadest possible protection



Legal requirements limit the scope of the patent

Claims:

1. A wheel
2. The device of claim 1, comprising an annular winding of fibre in a groove

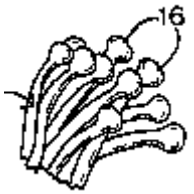


Application filed with the EPO

Claim 1: "An amusement device comprising a **core region** and **plural elastomeric filaments** radiating in **plural angularly offset planes** from the core region."

Claim 2: "A device according to claim 1, characterised in that it has a substantially **spherical** configuration."

Claim 3: "A device according to claim 1, characterised in that the outer ends of at least some of the filaments include **enlargements.**"



The EPO will perform its own prior art search and then consider whether the invention AS CLAIMED is new and non-obvious.

Additional prior art found by the EPO

"Self-adhesive mould elements"

BUNDESREPUBLIK DEUTSCHLAND

DEUTSCHES PATENTAMT

(12) **Offenlegungsschrift**

(11) **DE 3121758 A1**

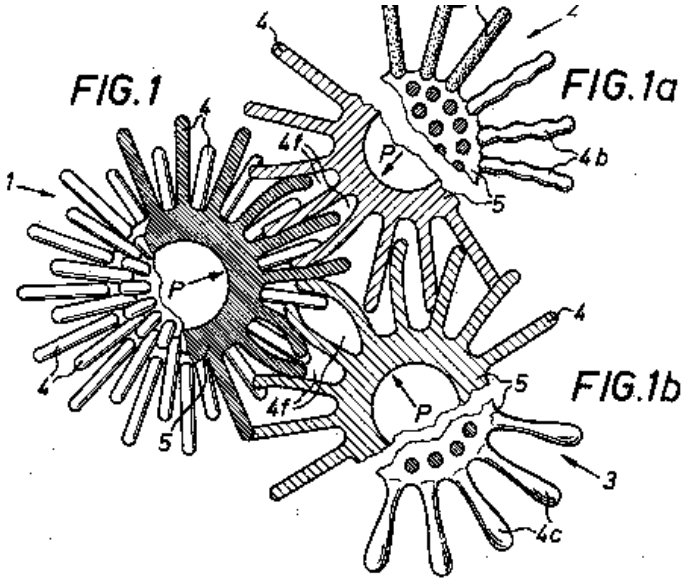
(21) Aktenzeichen: P 31 21 758.

(22) Anmeldetag: 2. 6. 81

(43) Offenlegungstag: 16. 12. 82

Anmelder:
Frommknecht, Hans, 7972 Isny, DE

(72) Erfinder:
gleich Anmelder



DE 3121758:
"Self-adhesive mould elements that are equipped with **spike-like rods or bristles** ... characterised by rods that are **attached on a core** and that are made of an **elastomeric material** ..."

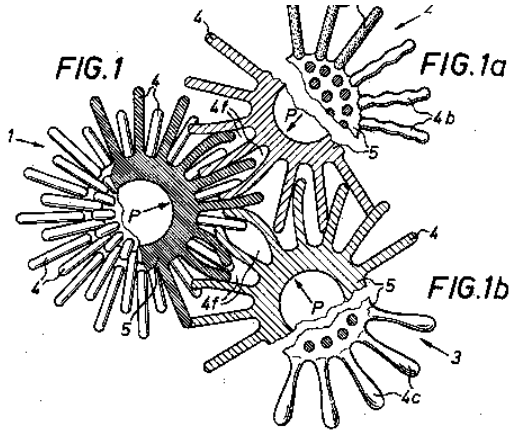
The opinion of the EPO

DE 3121758

Your claim:

"An amusement device comprising a **core region** and **plural elastomeric filaments** radiating in **plural angularly offset planes** from the core region."

Spike-like rods **attached on a core,** made of an **elastomeric material** ...



This is already shown and claimed in DE 3121758

EPO response:
Please amend your claims if you want your invention protected!

Further analysis

Did the EPO overlook any important features of the invention?

Applicant's reply:
Amendments to the application, explanation of the relationship between the invention and the prior art

How can the claims be amended to reflect the invention in such a way that it is new (considering all the prior art)?

Comparison of the invention with the prior art

	US 3759518	DE 31211758
Technical features of the invention		
Core + flexible filaments	✓	✓
Plurality of angular planes	**No**	✓
Floppy filaments	✓	**No**
Advantages/technical result	(floating movement)	(self-adhesive)
Easier to catch	**No**	**No**
Flies less far + doesn't break things	**No**	**No**

Result of the analysis

Although the individual elements of the invention are known, the **combination is not** and it produces a **new, unique benefit**.

Given our knowledge of the prior art, it is not obvious to combine the elements to achieve these new effects → the inventive step requirement is fulfilled.

The claim must be amended to distinguish it from DE 31211758:

"An amusement device comprising a core region and plural **elongate, floppy**, elastomeric filaments, each having **cross-sectional dimensions which are significantly smaller than its length**, radiating in plural angularly offset planes from the core region."

The original description filed with the EPO supports the amendments to the claims

This invention **pertains to** an amusement device, and more particularly, to a throwing/catching device which is especially easy to catch.

One of the **problems** with many conventional throwing/catching devices is that … they ... tend to bounce and … sometimes hurt to catch.

A general **object of the present invention** … avoiding any tendency to bounce … grasping … prevents … throwing or hitting it very far … break anything on contact.

According to a **preferred embodiment** of the invention, …

Detailed description
Device 10 is formed with a large **plurality of elongate, floppy, elastomeric filaments** 12, each of which, as is clearly evident in Fig. 1, has **cross-sectional dimensions which are extremely small in relation to the length of the filament**. As will be more fully explained shortly, these filaments are joined in a central core region in such a manner that they radiate outwardly in a fairly uniform, dense and bushy fashion, in **multiple angularly offset planes**, to form a **substantially spherical configuration**.

Supports inventive step: different technical result

Different to patent DE312…

Different to patent US375…

The patent is finally granted

Response from EPO: granted!

(19) Europäisches Patentamt
European Patent Office
Office européen des brevets

(11) Publication number: **0 295 114**
B1

(12) **EUROPEAN PATENT SPECIFICATION**

(45) Date of publication of the patent specification: **05.12.90**

(51) Int. Cl.[5]: **A63H 9/00**, A63H 3/02, A63B 43/00, A63F 9/02

(21) Application number: **88305303.5**

(22) Date of filing: **10.06.88**