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Brain@work - Information Literacy

The state of the art beyond bibliographic search (a.c. non-patent literature search)

IP Search Tools

February 3, 2020

Brain@work - Information Literacy

Intellectual Property (IP) Search Tools

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ADDITIONAL INFORMATION

PATENT CASE STUDY

Two companies with two very different IP strategies

1. Large internationally known company

2. SME

→ Two very different IP strategies

Question

Who invented

- the personal computer (PC)?
- the point-and-click graphical user interface (GUI)?
- the laser printer?
- the Ethernet?

Answer

- They were all invented by Xerox PARC

What did Xerox PARC do wrong?

- They didn’t patent the technologies they invented, and these technologies were later used by others with great success.
- They did not keep them secret.

What do all these companies have in common?

- Apple
- 3Com
- Adobe Systems
- Microsoft
- IBM
- Hewlett Packard

What happens if you don’t protect your IP?

- You’re not protected!
- Others will be happy to capitalise on your ideas ... for free!

How did Xerox learn from this experience?

- XNE (Xerox New Enterprises)
  - Licenses technologies for a fee or royalty
  - Some are spun off, earning huge returns when the companies go public on the stock market
- XIG (Xerox Innovation Group)
  - R&D
  - IP
  - Business development for licensing
  - New business opportunities

Related article:
https://www.newyorker.com/magazine/2011/05/16/creation-myth

Example

- Sugru

Sugru (I)

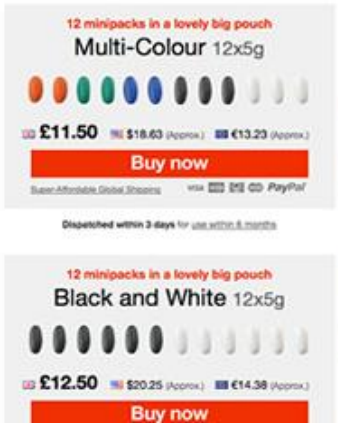
- Original idea from student Jane Delehanty for her master's degree in product design from the Royal College of Art.
- Problem: So many products have a limited lifetime and physical parts seem to break all the time.
- Solution: A silicone rubber which is hand-formable, sticks to almost anything, air cures at room temperature, becomes strong and durable even in extreme weather conditions and has a soft touch, but is "grippy".
- Called sugru, from the Irish "sugradh" meaning "play".

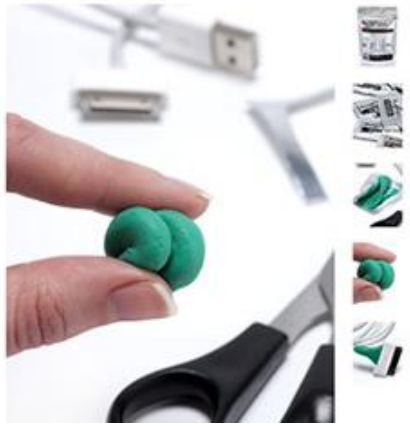
Sugru (II)

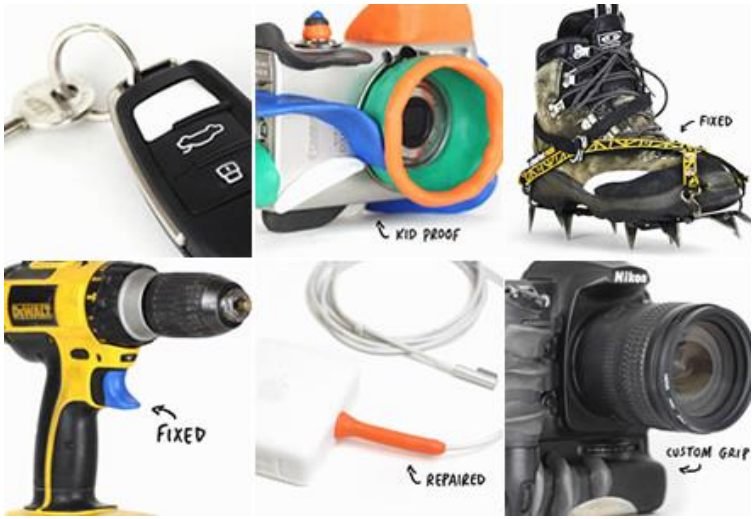
Advantages

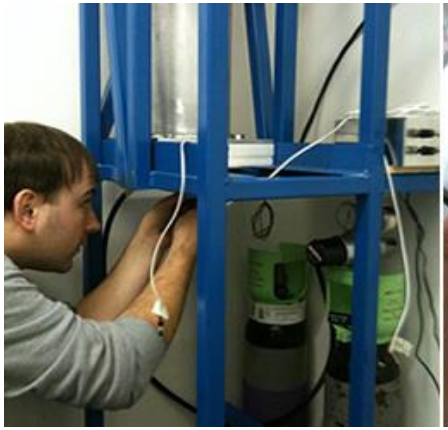
- It is a pliable substance which quickly sets to form a firm repair, mount or grip.
- It has the mouldability of a high-temperature curing silicone but retains the adhesive properties and room-temperature curing of glues and sealants.

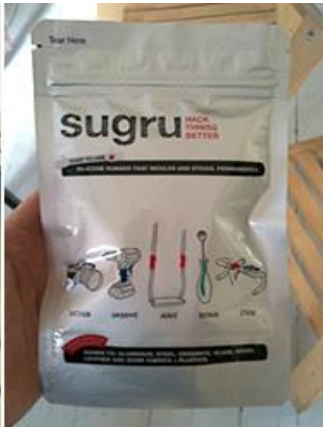
What does sugru look like?

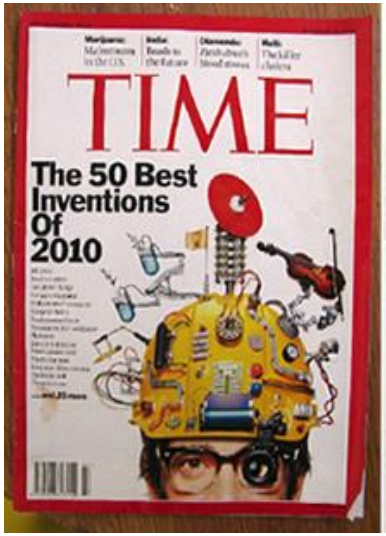


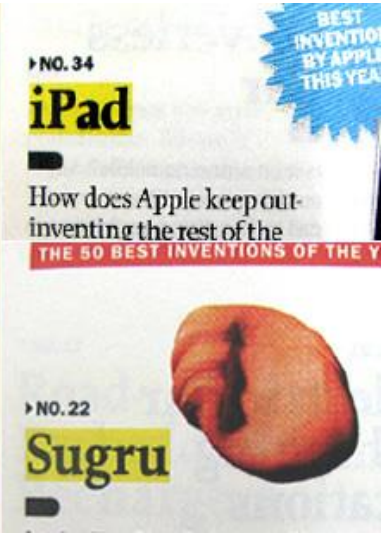












History of the sugru patent

- Priority application filed on 30 November 2006
- PCT application filed on 29 November 2007
- PCT application published on 5 June 2008
- Entered regional phase in Europe, national phases in the US, UK and China
- European patent already granted

Exercise 1

Discussion

1. What do you think the inventive concept is?

2. What do you think the applicants claimed in their application?

- a product
- a process
- a composition
- all of the above

Claims at the PCT stage

There are ten claims in total.

- Claim 1: Independent claim directed to a composition
- Claims 2-10: Dependent claims
- Claim 9: Product claim of the composition of claims 1 to 6
- Claim 10: Process claim for producing a product according to claims 1 to 6

Claim 1 of the PCT application

"A one part room temperature curable silicone elastomer composition where the uncured composition has a Williams plasticity from 80 mm to 900 mm."

Is it novel?

- Priority date: 30 November 2006
- Test for novelty: Did any document/publication exist before 30 November 2006 which, when taken alone, discloses the invention claimed in the sugru application?
- First published search report states claims 1 to 10 may not be novel and/or inventive. Why?
- The examiner cited seven prior art documents:
  - EP0575863A dated **29 December 1993**
  - US5171773A dated **15 December 1992**
  - US4476155A dated **9 October 1984**
  - GB2288406A dated **18 October 1995**
  - EP0905195A dated **31 March 1999**
  - US2006/142472A1 dated **29 June 2006**
  - WO03/072267A dated **4 September 2003**

What did the applicants do next?

- Options
  - Abandon the patent application **or**
  - Request a preliminary examination (optional) **and/or**
  - Enter the national/regional phase
- Decision
  - To continue prosecution by entering the national/regional phase in Europe, the USA, the UK and China
- The claims had to be amended to ensure they were novel and inventive

Comparison between original PCT claim 1 and the amended EP version

International patent application	Amended granted EP claim
A: A one part room temperature curable silicone elastomer composition **B:** where the uncured composition has a Williams plasticity from 80 mm to 900 mm.	**A:** A one part room temperature curable silicone elastomer composition **B:** where the uncured composition has a Williams plasticity from 80 mm to 900 mm, and **C:** where the composition is a non-adhesive composition, the composition comprising: **D:** 20 to 60% by weight of a hydroxy-terminated poly(dimethylsiloxane) of viscosity greater than 350 000 mPA s (25° C); **E:** 3 to 66% by weight of a reinforcing filler; D: 10 to 60% by weight of a non-reinforcing filler; **F:** 2 to 6% by weight of a crosslinker and **G:** a suitable quantity of a curing catalyst.

Patent status of sugru as of March 2013

- Granted EP patent: validation in the designated contracting states is in progress
- Examination has been requested in the other countries