Introduction to Patents and Intellectual Property
I will cover

• Forms of intellectual property
• Overview of patents and the patent process
• Finding patent information
I can’t help with

• Advising about patentability or commercial potential
• Patent application process
• Contact: Yale Office of Cooperative Research
Before we begin, a short quiz...
What is this well-known household product?
Tupperware®
United States Patent

Stevens et al.

METHOD AND APPARATUS FOR ACTIVATING SWITCHES IN RESPONSE TO DIFFERENT ACOUSTIC SIGNALS


Assignee: Joseph Enterprises, San Francisco, Calif.

Appl. No.: 58,727
Filed: May 7, 1993

Int. Cl. 9 .. H04B 1/00
U.S.CI. .. 381/110, 381/56
Field of Search .. 381/110, 56, 7; 367/197-199

References Cited

U.S. PATENT DOCUMENTS
D. 299,127 12/1988 Bogatsu
4,513,389 4/1985 Ueda et al. .. 383/110
4,641,292 2/1987 Tumell et al. .. 367/198
4,856,072 8/1989 Schneider et al. .. 381/110

Patent Number: 5,493,618
Date of Patent: Feb. 20, 1996

5,199,080 3/1993 Kimura et al. .. 381/110

FOREIGN PATENT DOCUMENTS
1250654 2/1989 Canada.
3608497 9/1987 Germany .. 381/110

OTHER PUBLICATIONS

Product Advertisement for The ClapperTM, Joseph Enterprises, Inc.
Videotape of thirty (30) second and sixty (60) second television commercials for The ClapperTM, Joseph Enterprises, Inc.

Primary Examiner—Stephen Britich
Attorney, Agent, or Firm—Townsend and Townsend and Crew

ABSTRACT

An acoustic switch device that independently operates two or more electrical appliances. The acoustic switch operates a first electrical appliance upon receipt of a first series of acoustic signals and operates a second electrical appliance upon receipt of a second series of acoustic signals that is different from the first series of acoustic signals.

9 Claims, 5 Drawing Sheets
The Clapper™
Is this on your desktop?

United States Patent

Lapson et al.

| Patent Number: | 4,464,652 |
| Date of Patent: | Aug. 7, 1984 |

CURSOR CONTROL DEVICE FOR USE WITH DISPLAY SYSTEMS

Inventors: William F. Lapson, Cupertino; William D. Atkinson, Los Gatos, both of Calif.

Assignee: Apple Computer, Inc., Cupertino, Calif.

Appl. No.: 399,704
Filed: Jul. 19, 1982

Int. Cl. G09G 1/00

U.S. Cl. 340/710; 340/709; 340/716; 74/471 XY

Field of Search 340/710, 709, 809, 810, 340/870.28, 870.29, 711, 716; 250/231 SE; 74/198, 471 XY; 358/183

References Cited

U.S. PATENT DOCUMENTS

3,395,589 8/1968 Gersten 74/198
3,541,541 11/1970 Engelbart 340/710
3,625,083 12/1971 Boue 74/471 XY
3,987,685 10/1976 Opozenta 340/710
4,245,244 1/1981 Lijewski et al. 358/183
4,310,839 1/1982 Schwerdt 340/709

FOREIGN PATENT DOCUMENTS

1526428 9/1978 United Kingdom 340/710

Primary Examiner—Gerald L. Brigance
Attorney, Agent, or Firm—Blakely, Sokoloff, Taylor & Zafman

ABSTRACT

A cursor control device having particular application to a computer display system is disclosed. The cursor control includes a unitary frame, having a domed portion substantially surrounding and retaining a ball which is free to rotate. X-Y position indicating means are provided, such that rotation of the ball provides signals indicative of X-Y positions on the display system. The ball is free to "float" in the vertical direction within the dome, and thereby maintain good surface contact. X-Y positions are established by movement of the control device over a surface. A display system and method is disclosed for use in conjunction with the cursor control device, which permits a user to select command options simply by movement of the displayed cursor over a "pull-down" menu bar.

13 Claims, 15 Drawing Figures
Computer Mouse
A method of styling hair to cover partial baldness using only the hair on a person's head. The hair styling requires dividing a person's hair into three sections and carefully folding one section over another.
Comb over
What is **Intellectual Property**?

- Creation of the mind
- There are four kinds of intellectual property:
  - Copyrights
  - Trademarks
  - Trade Secrets
  - Patents
What is copyright?

• A form of protection provided to the creators of “original works of authorship.”
• Includes artistic and literary works.
• Works can be registered by the U.S. Copyright Office for a fee.
• Term: author’s life plus 70 years. (for works created after 1/1/1978)
• The US has relations with most countries to honor copyrights.
What is a **trademark**?

- A brand name
- May be a word, name, symbol used to identify the source of the goods and services of one owner
- Distinguishes them from the goods and services of a competitor.
- Term is 10 years; continues indefinitely
What is a **trade secret**?

- Can include a formula, pattern, compilation, program, device, method, technique or process.
- Provides a competitive advantage over competitors.
- Can last forever if owner keeps it secret. Courts can protect trade secrets against unauthorized disclosure by awarding damages.
- Protection is very limited. If a trade secret holder fails to main secrecy or if the information is independently discovered, protection is lost.
- Not registered with any government authority.
What is a **patent**?

- Right of title to an invention for a limited period of 20 years
- Requires **full** disclosure *(note difference with a trade secret)*
- Patent rights only apply to the country where the patent is issued
What is a **patent**?

- Owner has exclusive rights to **exclude** others from making or selling the invention

- Licensing
  - Case study: Yale research drug d4T/Zerit (2001)
Doctors’ group asks Yale to relax drug patent

Representatives from Doctors Without Borders, a humanitarian medical aid organization that won the Nobel Peace Prize in 1999, have sent a letter asking the University to permit a generic copy of a Yale-patented AIDS drug to be imported and distributed in South Africa.

Currently, the drug in question, d4T, can only be sold by companies authorized by Yale and Bristol-Myers Squibb Co., the pharmaceutical giant Yale has contracted to process, market and sell the antiretroviral chemical compound. Doctors Without Borders said the patent for d4T in South Africa is registered under the Yale name and hopes the University will issue a voluntary license to allow the importation and use of generic d4T in South Africa. Provost Alison Richard, Yale’s chief academic and financial officer, said Yale is trying to make the drug available cheaply in South Africa, but the ability to issue a license is not within Yale’s power because of the contract with Bristol-Myers Squibb.

“It’s not ours to give away,” Richard said. “We are hopeful that Bristol-Myers Squibb is going to do their best to make this work out.”


Yale Pressed to Help Cut Drug Costs in Africa

Trying a new tack to drive down the price of AIDS medicines, the medical charity Doctors Without Borders has asked Yale University to permit South Africa to import a generic version of a drug on which Yale holds the patent.

The university, citing a patent contract with Bristol-Myers Squibb, has refused. But the Yale press office released a brief statement on Friday saying Yale had removed all barriers to Bristol-Myers in making the drug readily available in South Africa and hoped it would do so.

A group of Yale law students, distressed that their university looks complicit in keeping the drug out of reach of thousands of dying South Africans while getting $40 million a year in license fees, have been planning to pressure Yale.

By DONALD G. MCNEIL JR. MARCH 12, 2001

New York Times, March 12, 2001

Campus revolt challenges Yale over $40m Aids drug

University claims its hands are tied by deal with drug firm

Special report: Aids Guardian Unlimited Education Yale Medicine: how d4T has boosted Yale's patent royalty income tenfold Zeit.com

Yale University is under growing pressure from its students to put conscience before profit and allow an Aids drug invented in its laboratories to be made available to those who need it most.

Julian Borger and Sarah Boseley

The Guardian, March 13, 2001
Statement by Yale University Regarding Bristol-Myers Squibb Company's Program to Fight HIV/AIDS

March 14, 2001

Yale is pleased that Bristol-Myers Squibb (BMS) has decided to make Zerit, a Yale research discovery, available below cost throughout Africa. The University also commends BMS for the other steps it is taking to help address the AIDS crisis.

Yale worked diligently to remove any obstacles created by its license agreement with BMS. We are gratified that our efforts paved the way for the significant action announced by BMS today. We will continue to encourage all pharmaceutical companies to make their AIDS drugs affordable and widely available in Africa.

Yale is proud that Zerit has helped to prolong the lives of so many who suffer from AIDS. We are especially grateful that BMS' action will allow many more to benefit from this important drug.
Bristol-Myers Squibb Announces Plan to Provide Zerit, Videx for $1 a Day to African Countries

Bristol-Myers Squibb announced yesterday that it will sell its two AIDS drugs Videx and Zerit at $1 per day to all African nations participating in the ACCESS Program, a joint initiative sponsored by the United Nations and five pharmaceutical companies to provide cheaper AIDS drugs to Africa. In addition, the drug company also announced that it will make the patent rights for Zerit available "at no cost" to South Africa. The actions are two
Types of patents
An apple tree of the Red Delicious type, originated as a bud mutation which was caused by irradiating twigs of Topred Delicious (P.P. No. 1,916).

SUMMARY OF THE INVENTION
This invention relates to improvements in apple trees of the Red Delicious type.
Design: Appearance

United States Design Patent

Primary Examiner: ~

FIG. 1 is an isometric view of the automobile body shown in a different orientation and in a reduced size relation. The automobile body is shown in a convertible automobile configuration.

Inventors: Andrew P. Dyson, West Bloomfield, MI (US); Joseph S Dehner, Bloomfield, MI (US); David C. McKinnon, Bloomfield, MI (US); Glenn W. Abbott, West Bloomfield, MI (US)

Assignee: DaimlerChrysler Corporation, Auburn Hills, MI (US)
Utility – Function – 90% of patents

United States Patent

Hartman et al.

Method and system for placing a purchase order via a communications network

A method and system for placing an order to purchase an item via the Internet. The order is placed by a purchaser at a client system and received by a server system. The server system receives purchase information including identification of the purchaser, payment information, and shipment information from the client system. The server system then assigns a client identifier to the client system and associates the assigned client identifier with the received purchase information. The server system sends to the client system the assigned client identifier and an HTML document identifying the item and including an order button. The client system receives and stores the assigned client identifier and displays and receives the HTML document. In response to the selection of the order button, the client system sends to the server system a request to purchase the identified item. The server system receives the request and combines the purchase information associated with the client identifier of the client system to generate an order to purchase the item in accordance with the billing and shipment information associated with the purchaser's order.
Patent process overview

• Determine if your invention is patentable
  (Must be novel, useful, non-obvious)
  “Prior art”

• What kind of patent do you need? (Utility, Design, Plant)

• Get ready to apply (Most inventors employ a registered patent attorney or patent agent)

• Submit your application

• Work with your examiner

• Receive approval or rejection (typically 3 years after filing)

• Maintain your patent (Pay maintenance fees after 4, 8, and 12 years)
Can genes be patented?

- Genes cannot be patented because DNA is a product of nature.
- The Court decided that because **nothing new is created** when discovering a gene, there is no intellectual property to protect.
- Prior to this ruling, more than 4,300 human genes were patented. The Supreme Court’s decision invalidated those gene patents, making the genes accessible for research and for commercial genetic testing.
- DNA manipulated in a lab is eligible to be patented because DNA sequences altered by humans are not found in nature.

https://ghr.nlm.nih.gov/primer/testing/genepatents
Information in a patent

- **Inventor:** also known as patentee
- **Assignee:** The person or company to whom the inventor has given rights to the invention.
- **Filing date:** U.S. adopted First-inventor-to-file system
- **Classification:** Cooperative Patent Classification (CPC)
- **Abstract, description, images:** Full disclosure required
- **Claims:** Scope of the invention
- **References Cited:** Related documents
Why search the patent literature?

• Only source for much technical information
• Avoid duplication of research
  (Remember: in order for a patent to be granted the invention must be novel.)
• Find information on a company’s research efforts
• Identify experts in a field
• Identify new research fronts
Challenges of patent literature

• Patents do not include product names
  Final product names and manufacturing processes are determined later

• Patent language is difficult
  Legal, technical, descriptive
  Example: *The invention herein provides a sealing closure for containers in the form of a hollow finger-engageable stopper having elasticity and flexibility with a slow rate of recovery to provide a non-snapping and noiseless type of cover which is applicable to the lip of the container by hand conformation and removable therefrom by a peeling-off type of procedure. (US 2,487,400)*

• Patents are not really scientific literature
  Patents are granted for novelty and are not required to demonstrate proof of success
Searching the patent literature for prior art

• Think of keywords to describe the invention
  • What does it do?
  • What is it made of?
  • What is it used for?

• Consider synonyms (e.g. sphere or ball)

• Search by identified patent classification codes
Google Patents: [patents.google.com]
How would you describe this invention?
Generally spherical object with floppy filaments to promote sure capture

Abstract

An amusement device which has a substantially spherical configuration, and which is formed from a large plurality of floppy, elastomeric filaments that radiate in a series, bushy manner from a central core region. The filaments are sufficiently floppy to collapse on impact, thus to absorb enough energy to avoid any tendency to bounce. They are also sufficiently dense and floppy that they tend to quickly thread their way between the fingers of a user on contact with the hand. These features promote sure and quick capture of the device during the act of catching.

Description

BACKGROUND AND SUMMARY OF THE INVENTION

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

To youngsters who are just developing motor control, to youngsters and others who may have some motor control dysfunctionality, as well as to many who simply

Claims (8)

1. An amusement device comprising:
   a) a core region, and
   b) plural, alongside, floppy, tiny-diameter, elastomeric filaments, each having a
Koosh Ball Patents

• “Generally spherical object with floppy filaments to promote sure capture” (Utility Patent: 4,756,529)

• “Throwing Toy” (Design Patent: D317,489)
Classification Search

• Patents are assigned classification numbers.
• One classification for the Koosh ball is A63F9/0278
Questions?

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http://guides.library.yale.edu/patents