

Ricerca dello Stato dell'arte Brevettuale



Giuseppe Conti
Politecnico di Milano

INDICE

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Introduzione: perchè effettuare una ricerca brevettuale?

Strumenti e metodologie: analisi di banche dati brevettuali

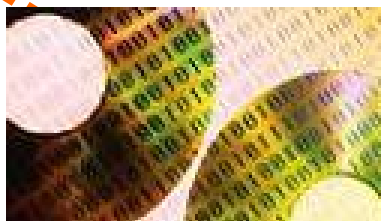
Case study: esempi di ricerca

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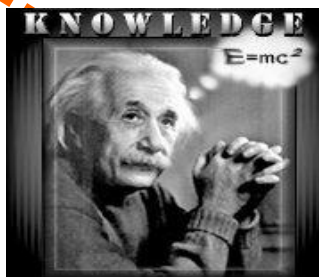
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PERCHE' effettuare una ricerca?

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- Formato universale e sistema di classificazione internazionale
- Strumenti moderni di accesso (CD-ROM, Banche dati, Internet)

Contenuto

- L' 80% dell'informazione contenuta nel brevetto non è disponibile in nessun altro documento
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Valutazioni

- (1) Individuare la novità e attività inventiva
- (2) Direzionare la ricerca verso nuove soluzioni
- (3) Definire l'ambito di protezione del nuovo brevetto
- (4) Analizzare potenziali licenziatari/concorrenti

MODALITA' di RICERCA

6

Campi ricercabili

N° di pubblicazione (A domande, B brevetti concessi)

N° di domanda

N° di priorità

Data di pubblicazioni

Depositante

Inventore

Classificazione brevettuale internazionale

Titolo

Tutto testo

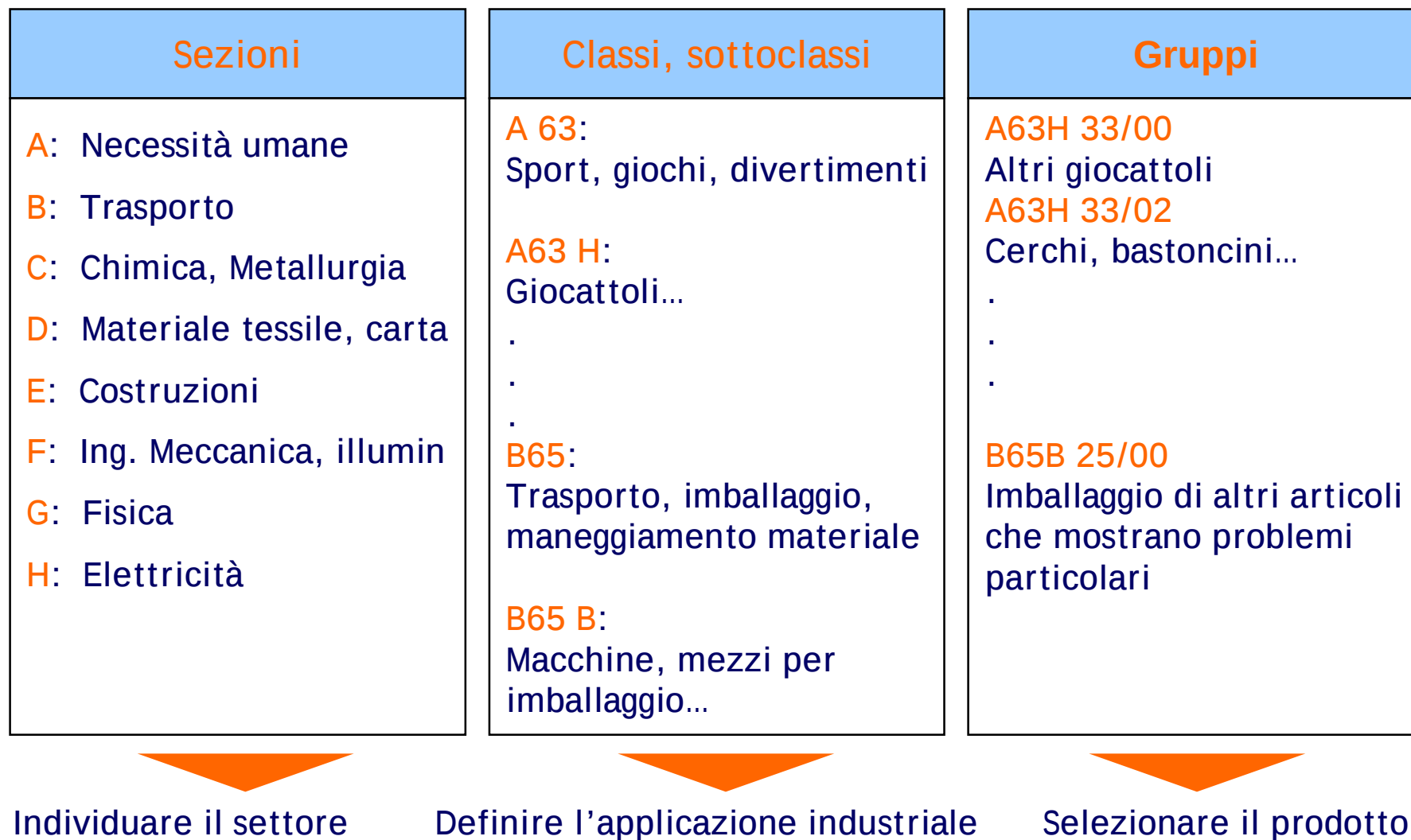
IPC

International Patent Classification

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L'Ufficio	Nome del marchio	+ Elenco dei prodotti e servizi	
Il marchio comunitario	Numero del marchio	Classificazione di Nizza:	4
L'Ufficio	Numero di registrazione	Elenco dei prodotti e servizi	Oli e grassi industriali; lubrificanti; prodotti per assorbire, bagnare e legare la polvere; combustibili (comprese le benzine per motori) e materie illuminanti; candele e stoppini per illuminazioni.
Il marchio	Banche dati		
Il disegno o modello	CTM-ONLINE		
Banche dati	CTM-AGENT		
CTM-ONLINE	CTM-DOWNLOAD	Classificazione di Nizza:	8
CTM-AGENTS	EURONICE-ONLINE	Elenco dei prodotti e servizi	Utensili e strumenti azionati manualmente; articoli di coltelleria, forchette e cucchiaini; armi bianche; rasoi.
CTM-DOWNLOAD	Proposed XML		
EURONICE	Allargamento	Classificazione di Nizza:	11
Proposec		Elenco dei prodotti e servizi	Apparecchi di illuminazione, di riscaldamento, di produzione di vapore, di cottura, di refrigerazione, di essiccamento, di ventilazione, di distribuzione d'acqua e impianti sanitari.
Allargame		Classificazione di Nizza:	20
	Contacto:	Elenco dei prodotti e servizi	Mobili, specchi, cornici; prodotti, non compresi in altre classi, in legno, sughero, canna, giunco, vimini, corno, osso, avorio, balena, tartaruga, ambra, madreperla, spuma di mare, succedanei di tutte queste materie o in materie plastiche.
	Prima lingua:	Classificazione di Nizza:	21
	Seconda lingua:	Elenco dei prodotti e servizi	Utensili e recipienti per il governo della casa o la cucina (né in metalli preziosi, né in placcato); pettini e spugne; spazzole (ad eccezione dei pennelli); materiali per la fabbricazione di spazzole; materiale per pulizia; paglia di ferro; vetro grezzo o semilavorato (tranne il vetro da costruzione); vetreria, porcellana e maiolica non comprese in altre classi.
		Classificazione di Nizza:	26
		Elenco dei prodotti e servizi	Merletti, pizzi e ricami, nastri e lacci; bottoni, ganci e occhielli, spille e aghi; fiori artificiali.

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Smith John | Mary V Smith | Smith

Assignee:
Sony | Spain | London

Title:
canine | road sign | printer OR scanner

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utilizzando la banca dati di DELPHION,
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inerenti a mandrini idraulici per macchine utensili.

in inglese “mandrino” (riferito a macchine utensili)
può essere espresso nei seguenti modi:

Spindle, arbor, mandrel, mandril, chuck, boring bar

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	☐	EP0832035B1	08/02/2000	B65H 18/02	THE PROCTER & GAMBLE COMPANY	TURRET WINDER MANDREL CUPPING ASSEMBLY
	☐	EP0900865B1	10/02/2002	D01H 7/86	Volkmann GmbH	Twisting spindle in particular two-for-one twisting or direct cabling spindle
	☐	EP0828678B1	04/05/2000	B65H 18/02	THE PROCTER & GAMBLE COMPANY	TURRET ASSEMBLY
	☐	EP0867391B1	09/18/2002	B65H 18/16	ILLINOIS TOOL WORKS INC.	Winding sheet material
	☐	EP0777571B1	11/21/2001	B29D 31/00	THE BOEING COMPANY	COMPOSITE STRINGER ASSEMBLY MACHINE
	☐	EP0737545B1	06/14/2000	B24B 7/17	Supfina Grieshaber GmbH & Co.	Apparatus for superfinishing both sides of a workpiece
	☐	EP0722306B1	09/11/2002	A61F 13/15	THE PROCTER & GAMBLE COMPANY	METHOD FOR COMBINING A TENSIONED ELASTIC GARTER WITH A SUBSTRATE

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	☐	EP0796699B1	01/30/2002	B23Q 5/14	Klement, Klaus-Dieter	Spindle drive for a machine tool	
	☐	EP0907461B1	01/09/2002	B24B 41/04	Unova U.K. Limited	GRINDING MACHINE SPINDLE FLEXIBLY ATTACHED TO PLATFORM	
	☐	EP0733426B1	12/12/2001	B23B 29/034	HOWA MACHINERY, LTD.	Tool position correcting device	
	☐	EP0868240B1	11/28/2001	B23B 31/32	THE GLEASON WORKS	WORKHOLDING APPARATUS	
	☐	EP0739670B1	07/11/2001	B23B 11/00	Traub Drehmaschinen GmbH	Lockable spindle arrangement, in particular for clamping workpiece on a lathe	
	☐	EP0969945B1	09/25/2002	B23B 29/034	Ex-Cell-O GmbH	ADVANCING SYSTEM FOR A ROTARY CUTTING TOOL	

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	☐		EP0963268B1	09/04/2002	B23B 31/30	ETP TRANSMISSION AB	HYDRAULIC PRECISION MANDREL
	☐		EP0963269B1	08/14/2002	B23B 31/30	ETP TRANSMISSION AB	HYDROMECHANICAL CHUCK
	☐		EP0728557B1	10/31/2001	B23P 19/02	AUTOMOBILES PEUGEOT	Device for press-fitting a workpiece in a lodging of a receiving workpiece
	☐		EP0743139B1	02/16/2000	B23Q 37/00	HOMAG MASCHINENBAU AG	Machining centre with a spindle unit carrying tools and groups of tools for the working of wood and plastic workpieces
	☐		EP1104343B1	08/28/2002	B23B 49/02	Kennametal Inc.	DRILL JIG ASSEMBLY HAVING HYDRAULIC CHUCK AND DRILL GUIDE WITH PILOT BORE
	☐		EP0858862B1	08/28/2002	B23Q 7/14	Stark Spannsysteme GmbH	Quick connect coupling with fluid discharge opening
	☐		EP0881020B1	08/14/2002	B23B 51/00	O.M.F.B. S.p.A. -Hydraulic Components	Method and tool for working grooves with spherical undercutting

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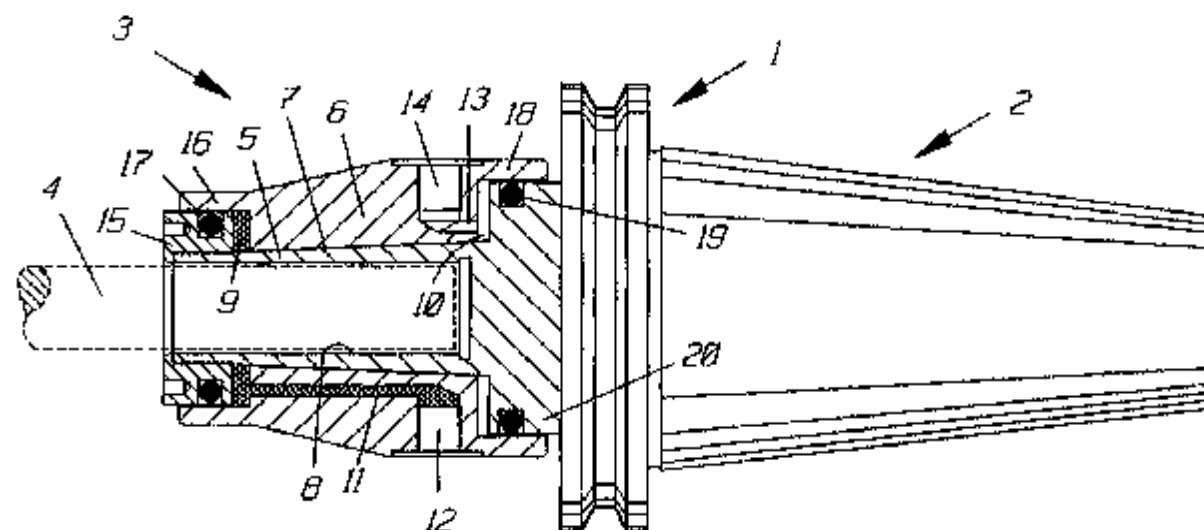
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	☐	EP0881020B1	08/14/2002	B23B 51/00	O.M.F.B. S.p.A. -Hydraulic Components	Method and tool for working grooves with spherical undercutting



(54) Title: HYDROMECHANICAL CHUCK



(57) Abstract

A hydromechanical chuck which is preferably intended to be mounted, with one end (2) thereof, in a machine tool, for instance in a drilling machine, a milling machine, a lathe machine etc. and, with the opposite end (3) thereof to releasably hold a shaft tool (4) like a drill, a milling tool, a rotary saw blade, a rotary grinding roll, and formed as a cone coupling chuck comprising a relatively thin inner sleeve (5) which can change its radial dimensions, and having a central axial bore (8) for receiving the shaft of a shaft tool (4), and adapted for being radially compressed against the said tool (4) shaft, and further having a mainly form solid outer sleeve (6) which is axially displaceable on the inner sleeve (5), and in which the inner sleeve (5) and the outer sleeve (6) are formed with a matching cone surface (7) which, upon a displacement of the outer sleeve (6) on the inner sleeve (5) provides a radial compression of the inner sleeve (5), and in which the chuck is formed with a hydraulic clamp pressure chamber (9, 11, 12) comprising a hydraulic pressure medium which, upon pressurization makes the outer sleeve (6) become displaced on the inner sleeve (5) thereby centering and clamp connecting the tool (4), and a pressure release chamber (10) for releasing the joint between the chuck and the tool (4).

INTER

(51) Internal
B23B

(21) Internal

(22) Internal

(30) Priority
970K

(71) Applica
MIS
(SU)

(72) Invento

(75) Invento
ISE
Link

(74) Agents:
P.O.

PCTWORLD INTELLECTUAL PROPERTY ORGANIZATION
International Bureau

INT. (54) Title: HYDRAULIC PRECISION MANDREL

(51) Int.
B2

(21) Int.

(22) Int.

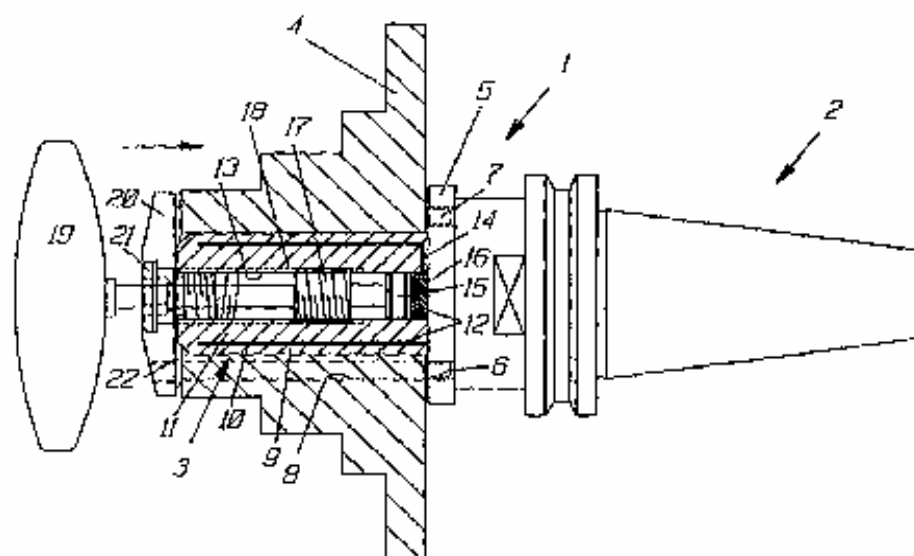
(30) Pri.

(71) Ap.

(72) Inv.

(75) Inv.

(74) Ag.

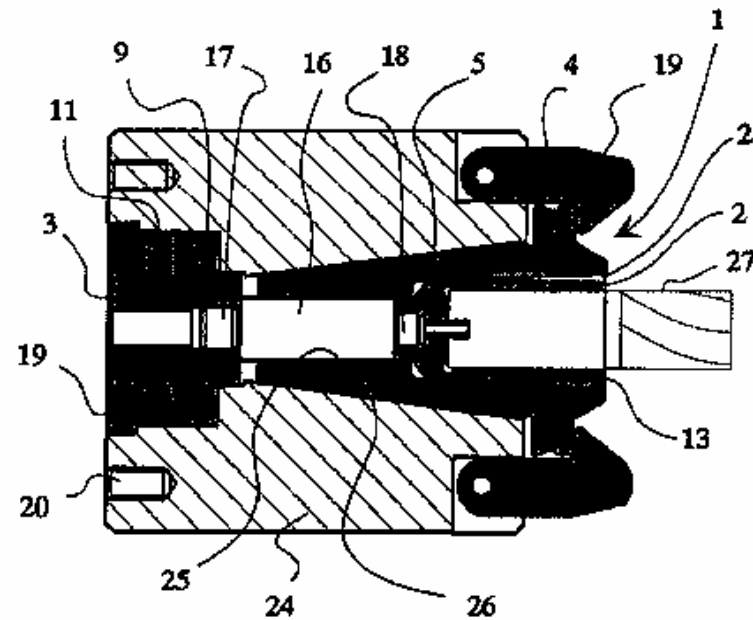


(57) Abstract

A hydraulic precision mandrel for use in rotary machine tools and comprising a transition part (1) and a clamp body (3) which is fixedly connected thereto, onto which clamp body one or more tools can be slid and can be secured, and in which the clamp body (3) is formed as a hydraulic clamp bushing having a radially outwards expandable outer wall (9) and, radially inside said outer wall (9), an all around extending gap (10) which is filled with a hydraulic pressure medium (12), and in which the clamp body (3) is formed with an axial, central bore (13) provided in the clamp body (3), one or more cross channels (14) opening in the pressure medium gap (10), a piston (15) defining a pressure medium chamber (16) which is filled with pressure medium (12) and which is located at or adjacent the inner end of the clamp body bore (13), and a pusher means (17), for instance a threaded pusher piston which is within reach through the free end of the clamp body, for instance by means of a wrench (19) and which is adapted to move the piston inwards or outwards in the mandrel body bore (13) for pressurization and pressure releasing, respectively, of the pressure medium in the all around extending pressure medium gap (10). The mandrel comprises a rubber spring (20, 22) for resiliently pressing and radially straightening up the tool or tools (4) against a radial flange (5) of the transition part.

A. CLASS.
IPC6: According
B. FIELD
Minimum
IPC6:
Document
SE,DK
Maximum
EDCC,
C. DOC
Category
P,X

(54) Title: PROCEDURE FOR FASTENING AN OBJECT AND A HYDRAULIC FASTENING APPARATUS



(57) Abstract

The invention relates to a procedure for the fastening of objects, e.g. working tools and workpieces, and to a holding device. The invention comprises a self-locking holding collet (2, 22) which fastens the object by means of an actuating element (3) which moves the holding collet to fasten and unfasten the object.

17 April 1997 (17.04.97), page 2, line 20 - page 3, line 11, figure 1

In questo secondo esempio vogliamo ricercare le domande di **brevetto europeo depositate** tramite procedura EPO e PCT dal **1997** ad oggi inerenti allo stesso oggetto del primo esempio

(((((spindle or arbor or mandrel or mandril or chuck or (boring bar)))) AND (PD>=1997-01-01) and (b23? <in> IC)) and (hydraulic))

Current Results PDF Express Data Extract Snapshot Clustering PatentLab

Result Set for Query: ((((((spindle or arbor or mandrel or mandril or chuck or (boring bar)))) AND (PD>=1997-01-01) and (b23? <in> IC)) and (hydraulic))) [help](#)

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(((spindle or arbor or mandrel or mandril or chuck or (boring bar)))) AN

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PDF	Select	Patent ▼	Pub. Date ▲	IPC Code ▲	Assignee ▲	Title ▲ (To sort a column, click ▼)
	☐	WO02090045A1	11/14/2002	B23Q 16/10	DIPLOMATIC AUTOMAZIONE S.P.A.	POSITIONING MULTIFUNCTIONAL MECHANISM FOR SUPPORTING TOOL-HOLDING DEVICES
	☐	WO02090041A1	11/14/2002	B23P 17/00	TEMPRESS TECHNOLOGIES, INC.	METHODS FOR METAL WORKING USING HIGH PRESSURE FLUID PULSES
	☐	EP1252957A1	10/30/2002	B23D 47/12	Globe-Invent Aktiebolag	Tool unit and cutting or sawing machine
	☐	EP1252956A1	10/30/2002	B23D 47/12	Globe-Invent Aktiebolag	Cutting or sawing machine and method for working an object
	☐	EP1250967A2	10/23/2002	B21B 15/00	Kawasaki Steel Corporation	A metal block joining apparatus
	☐	WO02070177A2	09/12/2002	B23B 31/30	COMMAND TOOLING SYSTEMS, LLC	HYDRAULICALLY ACTUATED HOLDER
	☐	WO02068143A2	09/06/2002	B23D 45/04	DEL-SAW, INC.	COUNTERBALANCED ADVANCING METAL CUTTING SAW
	☐	EP1231018A2	08/14/2002	B23Q 9/00	THE BOEING COMPANY	Portable multi-axis machine

DELPHION – ripetiamo lo snapshot (applicant e inventori)

28

Giuseppe Conti

7-8 ottobre 2004, Lecce

Select	Assignee	Item Count	Percent	Bar Chart
☐	MORI SEIKI CO., LTD.	<u>13</u>	4.4%	
☐	LIND FINANCE & DEVELOPMENT AB	<u>8</u>	2.7%	
☐	CITIZEN WATCH CO. LTD.	<u>4</u>	1.3%	
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☐	ETP TRANSMISSION AB	<u>4</u>	1.3%	
☐	KABUSHIKI KAISHA YASKAWA DENKI	<u>4</u>	1.3%	
☐	KAWASAKI STEEL CORPORATION	<u>4</u>	1.3%	
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	PORTA S.R.L.	<u>1</u>	0.3%	
	POWER TOOL HOLDERS INCORPORATED	<u>1</u>	0.3%	
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	ROBERTSON AND SINCLAIR LIMITED	<u>1</u>	0.3%	
	ROBOTIC TECHNOLOGY SYSTEMS PLC	<u>1</u>	0.3%	
	RUSSO, ANTHONY, A.	<u>1</u>	0.3%	
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Title: **WO9713604A1: PROCEDURE FOR FASTENING AN OBJECT AND A HYDRAULIC FASTENING APPARATUS**

Country: **WO** World Intellectual Property Organization (WIPO)
Kind: **A1** Publ. of the Int. Appl. with Int. search report [!]

Inventor: None

Assignee: **RINNE, Erkki, Kalevi**, FIN02400 Kela Kirkkonummi, Finland
[News, Profiles, Stocks and More about this company](#)

Published / Filed: **April 17, 1997 / Oct. 9, 1996**

Application Number: **WO1996FI0000533**

IPC Code: [B23B 3/117](#); [B23Q 3/152](#); [B23B 31/30](#);

ECLA Code: **B23B31/20B2; B23B31/40B2;**

Priority Number: Oct. 9, 1995 **FI1995000004791**

Abstract:
The invention relates to a procedure for the fastening of objects, e.g. working tools and workpieces, and to a holding device. The invention comprises a selflocking holding collet (2, 22) which fastens the object by means of an actuating element (3) which moves the holding collet to fasten and unfasten the object.
[\[Show in French\]](#)

[High Resolution](#)[Low Resolution](#)**17 pages**

PROTESI INNOVATIVA:

- Forma innovativa
- Area di contatto sferica
- Mantenimento dei legamenti del ginocchio

à Parole chiave: spherical knee prosthesis

RICERCA	Risultati
Spherical knee prosthesis	0
Spherical and knee prosthesis	228
<u>Spherical knee and prosthesis</u>	<u>1</u>
Spherical and knee and prosthesis	875

United States Patent [19] Bosredon

US006117175A

[11] **Patent Number:** **6,117,175**
[45] **Date of Patent:** **Sep. 12, 2000**

[54] **SPHERICAL KNEE JOINT PROSTHESIS**[76] Inventor: **Jean Bosredon**, 78 avenue de la République, 33200 Bordeaux, France[21] Appl. No.: **08/920,927**[22] Filed: **Aug. 29, 1997**

Related U.S. Application Data

[63] Continuation-in-part of application No. 08/293,898, Aug. 22, 1994, abandoned.

[51] **Int. Cl.⁷** **A61F 2/38**[52] **U.S. Cl.** **623/20.15; 623/20.22; 623/20.32; 623/20.33**[58] **Field of Search** **623/20, 18, 16, 623/20.14, 20.15, 20.21-20.23, 20.27-20.36**

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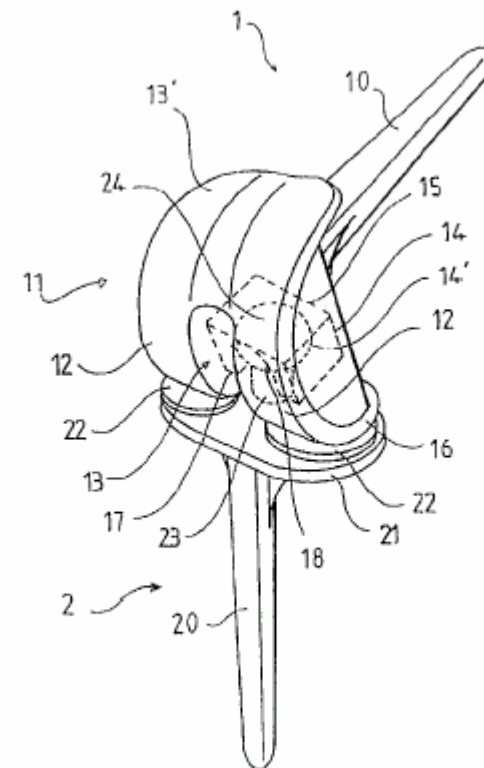
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0126978	12/1984	Euro
4102509	7/1992	Gerr
2088724	6/1982	Unit

Primary Examiner—David I
Assistant Examiner—Suzette
Attorney, Agent, or Firm—P

[57] **ABS1**

A replacement prosthesis for prosthesis comprises a femoral part cooperatively configured to a tibia of articulation. The femoral part comprising a pair of condyles, an intercondylar notch and a spherical cavity of the pair of condyles. The tibia comprises a tibial base, a catch and at least one disc removal. The condyles are rotatably slidable in the first articulation. The catch is provided with a second articulation which is provided with a spherical cavity. The prosthesis is selected from a set of heads of different heights and thicknesses such that tension can be obtained.

22 Claims, 7

Sezione A

{ A01 Agriculture, Forestry, Hunting
A61 Medical or veterinary science; Hygiene

Classe A61

{ A61B Diagnosis, Surgery, Identification
·
·
A61F ... Prosthesis, Orthopaedic ...

Sottoclasse A61F

{ A61F 2/00 Filters implantable into blood vessels, Prosthesis, Orthopaedic...
A61F 2/38 Prostheses implantable into the body - joints for elbows or knees
3454 brevetti

RICERCA	Risultati
Spherical and knee and prosthesis	875
A61F2/38	3454
<i>Incrociando i risultati</i>	
(Spherical and knee and prosthesis) and (A61F2/38)	176
(Spherical and knee and prosthesis and (ligament retaining) and (A61F2/38)	64

... esempio: Cono gelato motorizzato, ...

35

QUERY: (motorized ice cream cone)

RISULTATO

US 5971829
Motorized ice cream cone
1999-10-26

QUERY: motorized (and) ice cream cone

RISULTATO

US 5971829
Motorized ice cream cone,
A63H 33/00
1999-10-26

US 4498273
System for packaging ice cream cones,
B65B 25/00
1985-02-12

VALUTAZIONI

Classificazione brevettuale
Ampliamento ricerca

Individuazione precedenti
Valutare novità e originalità

Individuazione citazioni
Stima del valore

Creazione albero citazioni
Analisi potenziali licenziatari e
concorrenti

Giuseppe Conti

7-8 ottobre 2004, Lecce

BREVETTO di RIFERIMENTO

36

Giuseppe Conti

7-8 ottobre 2004, Lecce

Un nuovo divertente contenitore che sostiene, mette in rotazione e consente di scolpire una porzione di gelato, o di cibo similmente malleabile, mentre viene consumato. Comprende: una struttura per tenerlo in mano, una parte rotante sostenuta dalla struttura e adatta a ricevere e contenere una porzione di gelato, o di cibo di simile consistenza, e un meccanismo contenuto nella struttura che fornisce il moto alla parte rotante così da mettere il suo contenuto in rotazione contro una lingua tirata fuori da una persona.



US005971829A

[19] [11] **Patent Number:** **5,971,829**

[45] **Date of Patent:** **Oct. 26, 1999**

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5,553,643 9/1996 Goldbarb et al. 141/34
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0; B65D 85/78 *Cap Toys. 1996 product catalog, p. 14. (Cap Toys, Inc., 1996).*
46/73; 446/76;
5/132; 426/104
446/71, 73, 74,
426/132, 134,
135, 104

Primary Examiner—Robert A. Hafer
Assistant Examiner—Laura Fossum

[57] **ABSTRACT**

A novelty amusement eating receptacle for supporting, rotating and sculpting a portion of ice cream or similarly malleable food while it is being consumed comprising: a hand-held housing, a cup rotatably supported by the hand-held housing and adapted to receive and contain a portion of ice cream or food product of similar consistency, and a drive mechanism in the hand-held housing for imparting rotation upon the cup and rotationally feeding its contents against a person's outstretched tongue.

..... 40/406
..... 362/35

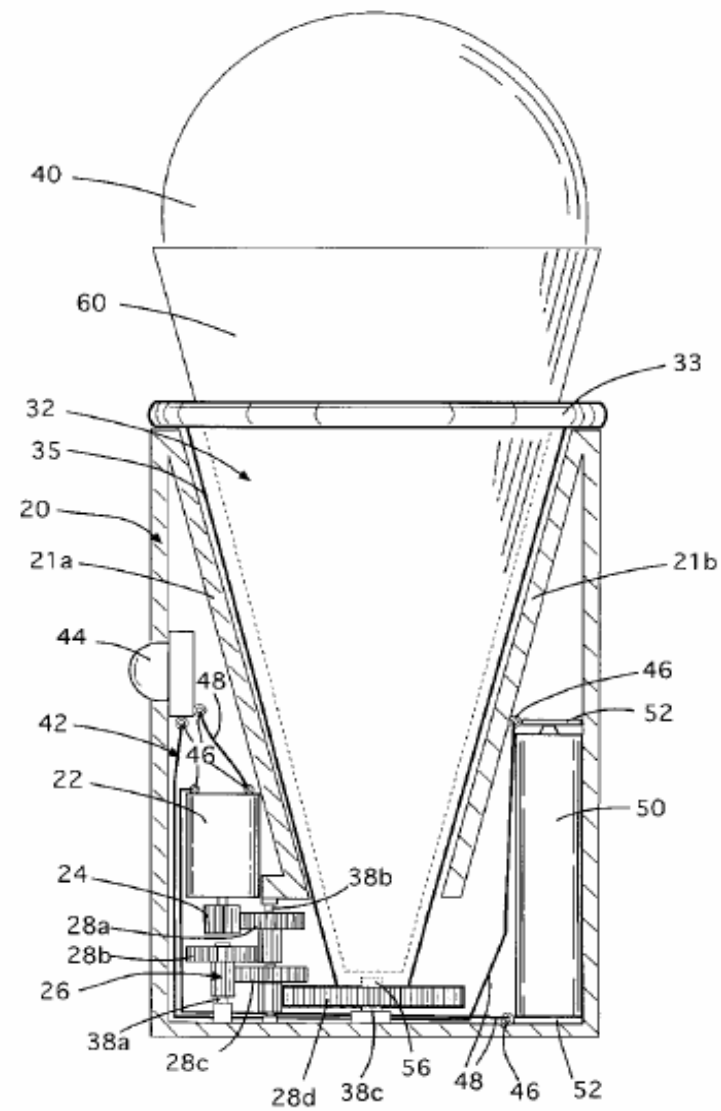
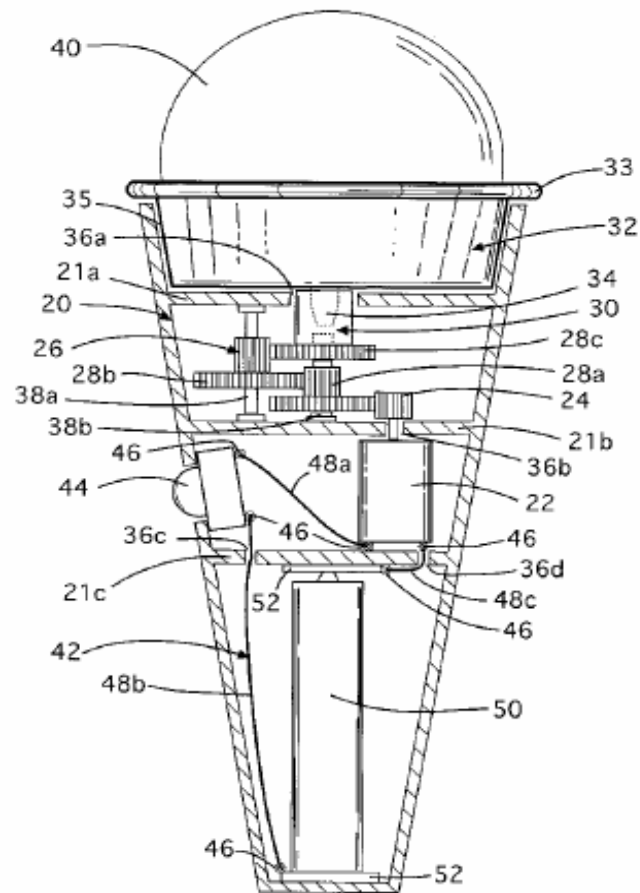
7 Claims, 6 Drawing Sheets

BREVETTO di RIFERIMENTO (immagini)

37

Giuseppe Conti

7-8 ottobre 2004, Lecce



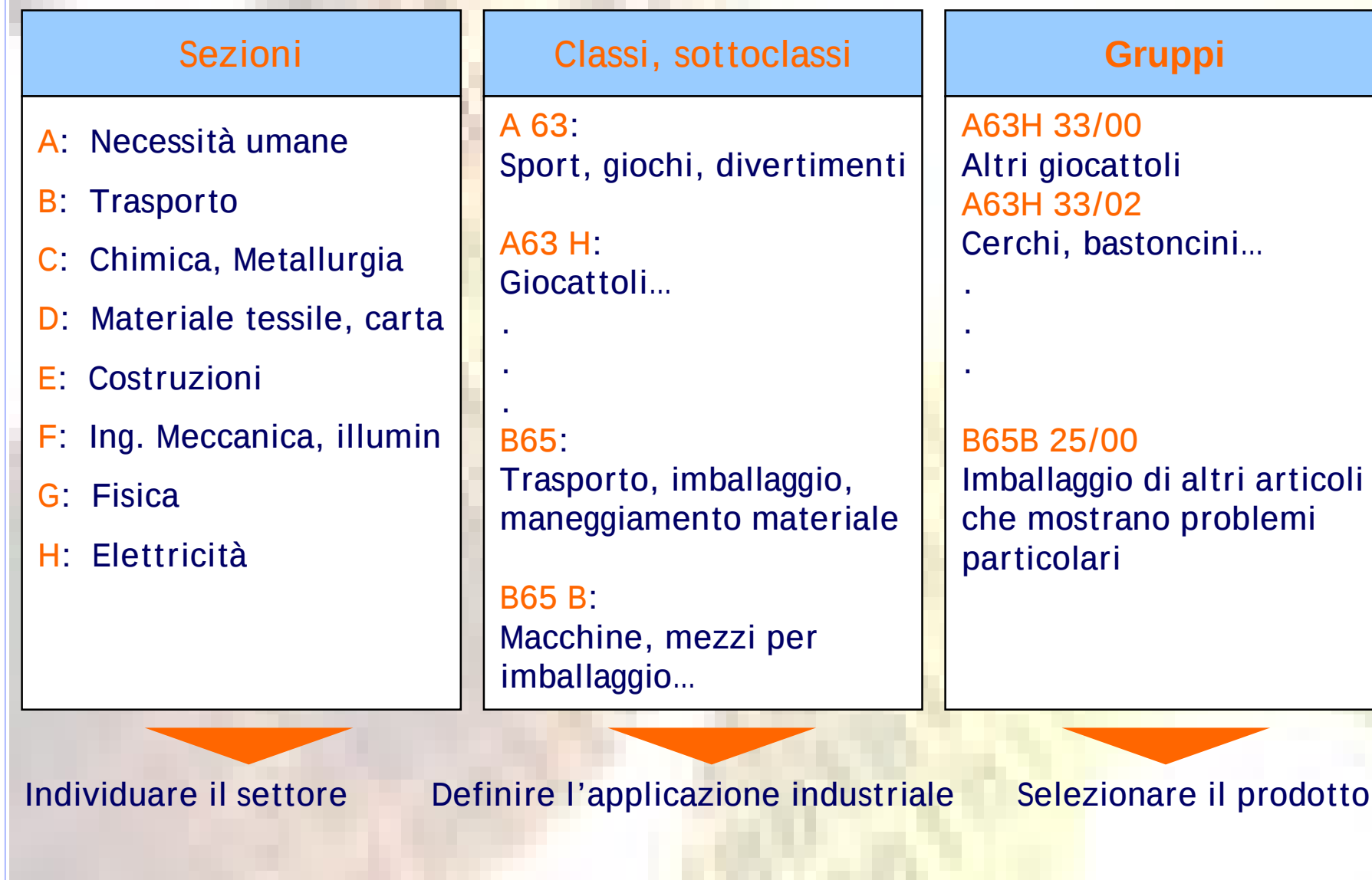
IPC

International Patent Classification

38

Giuseppe Conti

7-8 ottobre 2004, Lecce



US FORWARD REFERENCES

39

US6383536

Interactive foodstuff holding device

2002-05-07

A23G

US6227929

Whirling amusement device and associated method of operation

2001-05-08

A63H

US6074266

Spin pop with facial expression capability

2000-06-13

A63H

Giuseppe Conti

7-8 ottobre 2004, Lecce

US forward ref. US6383536

40

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7-8 ottobre 2004, Lecce

(12) **United States Patent**
Palmer et al.

(54) **INTERACTIVE FOODSTUFF HOLDING
DEVICE**

(76) Inventors: **William Randall Palmer**, 2510
Knollwood Dr.; **Stephen Lynn Palmer**,
Cameroon

Un alimento interattivo che
emette suoni, luci, movimenti ed
azioni mediante il controllo e/o
la manipolazione di condizioni
elettriche, ottiche o fisiche

RIVENDICAZIONE PRINCIPALE:

Combinazione di un alimento e di un
contenitore che produce differenti livelli
effetti sensoriali mediante la
manipolazione del contenitore stesso.
Detto contenitore comprende una parte
rigida rimovibile per contenere
l'alimento... un'altra per produrre effetti
sonori, luminosi... e un'ultima parte per
alloggiare le batterie...

FOREIGN PATENT DOCUMENTS

WO 94/17691 * 8/1994

Related U.S. Application Data

(60) Provisional application No. 60/097,421, filed on Aug. 20,
1998.

(51) **Int. Cl.**⁷ **A23G 1/00; A23G 3/00**

(52) **U.S. Cl.** **426/104; 426/90; 426/91;**
426/132; 426/134; 446/81; 446/404; 446/484

(58) **Field of Search** 426/104, 132,
426/134, 420, 90, 91; 446/71, 73, 81, 175,
202, 213, 297, 404, 397, 484; 340/384.1,
384.3, 384.7, 692

(56) **References Cited**

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34, 1993.*

* cited by examiner

Primary Examiner—Nana Bhat

(74) *Attorney, Agent, or Firm*—McHale & Slavin

(57) **ABSTRACT**

An interactive foodstuff emits sound, light, motion or other
action by the control and/or manipulation of the electrical,
optical or physical conditions of or proximal to the foodstuff.

12 Claims, 13 Drawing Sheets

US forward ref. US6074266

41

Giuseppe Conti

Dispositivo per contenere dolci, caramelle mettendoli in rotazione. E' composto di un dispositivo che contiene un supporto rotante dove è alloggiato la caramella, una parte deformabile...

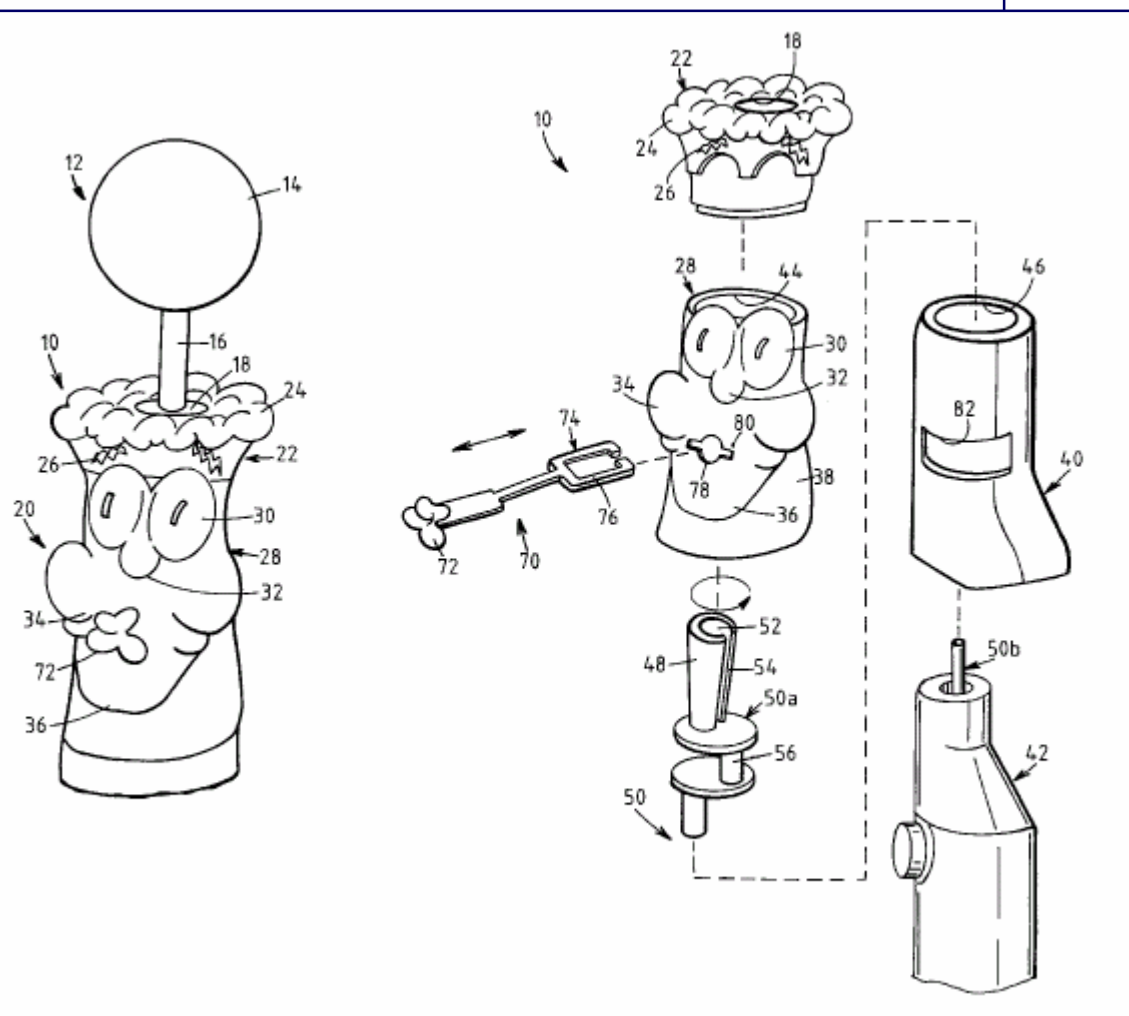
[58] Field of Search 42

446/73, 236

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5,324,527	6/1994	Coleman		446/236
5,690,535	11/1997	Coleman et al.		446/236
5,957,746	9/1999	Diamond		446/236 X



to the rotatable member. The lips may be coupled to the mouth area so that the lips, the mouth area, and/or the cheeks of the face move in and out in synchronism with rotation of the candy.

20 Claims, 2 Drawing Sheets

7-8 ottobre 2004, Lecce

US forward ref. US6227929

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Giuseppe Conti

7-8 ottobre 2004, Lecce

(12) **United States Patent**
Nelson et al.

(10) Patent No.: **US 6,227,929 B1**
(45) Date of Patent: **May 8, 2001**

Un divertente dispositivo
usato per muovere un
oggetto generando un
percorso irregolare.
Il dispositivo include un
elemento base nel quale è
inserito un altro elemento
rotante che può funzionare
sia manualmente che a
batterie....

5,209,692 * 5/1993 Coleman et al. 446/236
5,536,054 * 7/1996 Liaw 446/236
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5,823,844 * 10/1998 Markowitz 446/175
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Primary Examiner—Sam Rimell

(74) Attorney, Agent, or Firm—LaMorte & As

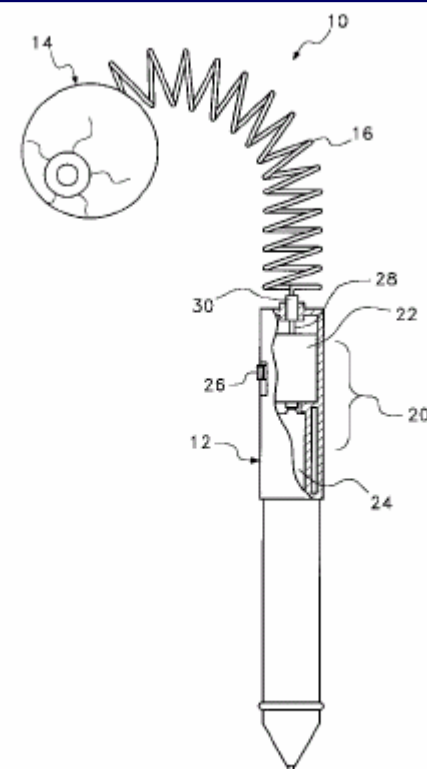
(57) **ABSTRACT**

An amusement device used to move a support object through an erratic path. The amusement device includes a base element in which is disposed a rotating assembly. The rotating assembly can be battery powered or manually powered. A support spring is used to interconnect a display object to the rotating assembly in the base element. The support spring has a first end and a second end. The first end of the support spring is connected to the rotating assembly within the base element. The support spring is rotated by the rotating assembly. The remainder of the support spring extends freely from the base element. The display object is coupled to the second end of the support spring. As the display object rotates, the support spring is at least partially elongated, thereby causing the display object to move erratically from point to point.

13 Claims, 4 Drawing Sheets

U.S. PATENT DOCUMENTS

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2,673,087 * 3/1954 Bacon .
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5,146,702 * 9/1992 Belokin .



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43

Giuseppe Conti

7-8 ottobre 2004, Lecce

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US5690535 Twin spins spin pop 1997-11-25
US5582532 Glitter toy 1996-12-10
US5553643 Apparatus and method for rapidly rotating containers to produce
multi-aspect designs 1996-09-10
US5536054 Lollypop holder 1996-07-16
US5224646 Dripless ice cream holder 1993-07-06
US5209692 Combination, a novelty toy and a candy holding device 1993-05-11
US4764850 Solar-powered display device 1988-08-16
US4490931 Display device and method 1985-01-01
US4231496 Food dispensing utensil 1980-11-04
US3814360 bowl supporting turntable for kitchen mixer 1974-06-04
US3598062 food product scooper 1971-08-10
US2581879 title unavailable - see image 1952-01-01
US2547651 title unavailable - see image 1951-04-01
US2162224 title unavailable - see image 1939-01-01

CITATION LINK

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7-8 ottobre 2004, Lecce

