

100 Documents

Publication numbers	Title	Current assignees
EP-653979 A1	Apparatus and methods for forming patterned soft gelatin capsules	KEE ACTION SPORTS II NEW YORK NY
EP-246693 A2	Method of manufacturing hard capsules for medicament use and apparatus of manufacturing them	SHIN ETSU CHEMICAL
EP-784969 A2	Method and apparatus for manufacturing pharmaceutical cellulose capsules - removing capsule from pin	R P SCHERER TECHNOLOGIES
EP1029538 A2	Soft gelatin capsule manufacture	R P SCHERER, ...
EP2234711 A1	Process for manufacturing breakable capsules useful in tobacco products	REYNOLDS TOBACCO
EP1140012 A2	Conversion of liquid filled gelatin capsules into controlled release systems by multiple coatings	ALZA
EP1066013 A1	Method for producing gelatin capsules	VOSS GUNTER M, ...
EP-622408 A1	Composition and process for gelatin-free soft capsules	CP KELCO
EP2793867 A2	Gelatin /alginate delayed release capsules comprising omega-3 fatty acids, and methods and uses thereof	PRONOVA BIOPHARMA NORGE
EP-401832 A2	Method for preparing hard capsules for medicaments	SHIN ETSU CHEMICAL
EP1001751 A1	Aqueous viscous compositions, whether clear or not, for making soft or hard capsules , and method for making films for such capsules	R P SCHERER TECHNOLOGIES
EP1755523 A1	A capsule filling machine and method for producing hard gelating capsules	IMA INDUSTRIA MACCHINE AUTOMATICHE
CA1279163 C	Apparatus for manufacturing gelatin capsule and method therefor	SANKYO
WO201416510 A1	Method and machine to form capsules containing a fluid	POLYTEK INNOVATIONS
EP2697123 A1	Device for checking pharmaceutical products, in particular hard gelatin capsules	ROBERT BOSCH
EP1719492 A2	Method and apparatus for blowmolding capsules of polyvinylalcohol and blowmolded polyvinylalcohol capsules	PVAXX RESEARCH & DEVELOPMENT
EP2809440 A2	Capsules containing mammalian cells	CAPSUM
EP3479821 A1	Process for manufacturing pullulan hard capsules having improved film properties	SUHEUNG
EP1497175 A1	Method and apparatus for making capsules	INGEL TECHNOLOGIES
EP1598062 A1	Film forming compositions comprising modified starches and iota-carrageenan and methods for manufacturing soft capsules using same	R P SCHERER TECHNOLOGIES, ...
KR101126778 B1	Device for manufacturing soft gelatin capsules capable of dropping a wedge to a gelatin sheet in power failure	BOCHANG
US5254294 A	Soft gelatin capsules	ALFATEC PHARMA

Publication numbers	Title	Current assignees
WO200945052 A1	Apparatus and method of manufacturing aseptic capsules	LIFECORD
EP-120248 A2	Soft gelatin capsules containing polyethylene glycol and process for preparing them	R P SCHERER
EP2410970 A1	New device for manufacturing soft capsules	SWISS CAPS RECHTE & LIZENZEN
EP1414639 A1	Method for bonding medical inhalation capsules in a material fit, and bonding device	BOEHRINGER INGELHEIM PHARMACEUTICALS
KR200373420U Y1	Apparatus transfer of system manufacturing soft gelatin capsule	KIM, Hwa-Suk
EP1216680 A1	Rotary die process and filling wedge for manufacturing capsules , in particular soft capsules	SWISS CAPS RECHTE & LIZENZEN
US5916591 A	Soft gelatin capsules	BASF
EP1549299 A2	Reduction of gelatin cross-linking	TEVA CZECH INDUSTRIES
EP-633733 A1	Heat-stable and fracturable spray-dried free-flowing flavor oil capsules , method of making and using in foods	GIVAUDAN ROURE
EP1518552 A1	Fish gelatin hard capsule and its preparation method	SUHEUNG CAPSULE
CN102702983 A	Method for restoring netted glue into gelatin by using leftovers in production of soft capsules	ZHENG ZHANGJI
WO202053374 A1	Process for manufacturing capsules and associated system	L'OREAL
EP1752140 A1	Method for banding hard capsules using hydroxypropylmethyl cellulose (HPMC) as a base	CAPSUGEL BELGIUM
EP1135294 A1	Dosing machine for hard gelatin capsules	IMA INDUSTRIA MACCHINE AUTOMATICHE
EP1654282 A2	Gelatin capsules	FIBROGEN
CN107260702 A	Preparation method of konjac glucomannan- gelatin based capsule	SOUTHWEST UNIVERSITY OF SCIENCE AND TECHNOLOGY
EP-319318 A2	Method for double dipping gelatin coated caplets	MCNEIL
WO9809150 A1	Method and device for determining the mechanical properties of soft capsules , and use thereof	AWD PHARMA
EP2595597 A2	Apparatus and process for encapsulating capsules or other solid dosage forms within capsules	PROCAPS
EP2475394 A2	Seamless alginate capsules	DUPONT NUTRITION BIOSCIENCES
EP-653995 A1	Encapsulation product, equipment and method	CAPSUGEL BELGIUM
KR200338038U Y1	Apparatus transfer of system manufacturing soft gelatin capsule	SIM, DONG BIN
EP-768873 A1	A method for treating capsules used for drug storage	GENENTECH
EP-493489 A1	Film-enrobed unitary-core medicament and the like	BANNER PHARMACAPS

Publication numbers	Title	Current assignees
FR2788778 A1	Composition for the manufacture of capsules has botanical hard shell, their method of manufacture and capsules thus obtained	SU HEUNG CAPSULE
EP1721605 A1	Methods of treating capsules and dry, powdered pharmaceutical formulations	BOEHRINGER INGELHEIM PHARMACEUTICALS
EP-633732 A1	Aqueous liquid flavor oil capsules, method of making and using in foods	GIVAUDAN ROURE
EP3423028 A1	Method for the production of encapsulated fragrance with improved stability against detergents	SYMRISE
EP1258242 A1	Process of manufacturing shaped bodies, in particular soft capsules	SWISS CAPS RECHTE & LIZENZEN
EP1072245 A1	Method and apparatus for sealing capsules and capsules suitable for use in said method and apparatus	WARNER LAMBERT
EP1526844 A2	Pellicle-resistant gelatin capsule	PHARMACIA
EP1210936 A1	Gelatin capsule	SUHEUNG CAPSULE
EP-530833 A1	Process to prepare hard gelatine capsules containing chinese herbal extracts	TSUMURA
EP--92908 A2	Hydrophilic polymer composition for injection molding	PFIZER
US4812561 A	Crystalline hydrate of oral cephalosporin and its composition	SHIONOGI & COMPANY
EP3205338 A1	Method of manufacturing enteric soft capsule	FUJI CAPSULE
US4251195 A	Apparatus for making miniature capsules	MORISHITA JINTAN
GB-733223 A	Improvements in or relating to the manufacture of soft gelatin capsules	AMERICAN CYANAMID
EP2285214 A1	Rasagiline soft gelatin capsules	TEVA PHARMA
CN104095826 A	Preparation method of natural vitamin E soft capsules	XUANCHENG BAIWEILI BIOLOGICAL ENGINEERING
EP1407678 A1	Capsules containing vital cells or tissues	MORISHITA JINTAN
WO201084601 A1	Powdery fat-containing soft capsules to be masticated	SANKYO
EP1105108 A1	Non-gelatin substitutes for oral delivery capsules, their composition and process of manufacture	PATHEON SOFTGELS, ...
EP1131037 A1	Process for the manufacture of liquid filled capsules	HOFFMANN LA ROCHE
EP2370066 A1	Method for manufacturing capsule series, and related capsule series	CAPSUM
EP2111239 A2	Gelatin-transglutaminase hemostatic dressings and sealants	BARD SHANNON
US3619842 A	Method articles and compositions of matter containing large capsules	NCR
EP2289494 A1	Polysaccharide capsules and methods of preparation	FMC BIOPLOYMER
EP1827393 A2	Room-temperature stable dronabinol formulations	FRESH CUT DEVELOPMENT

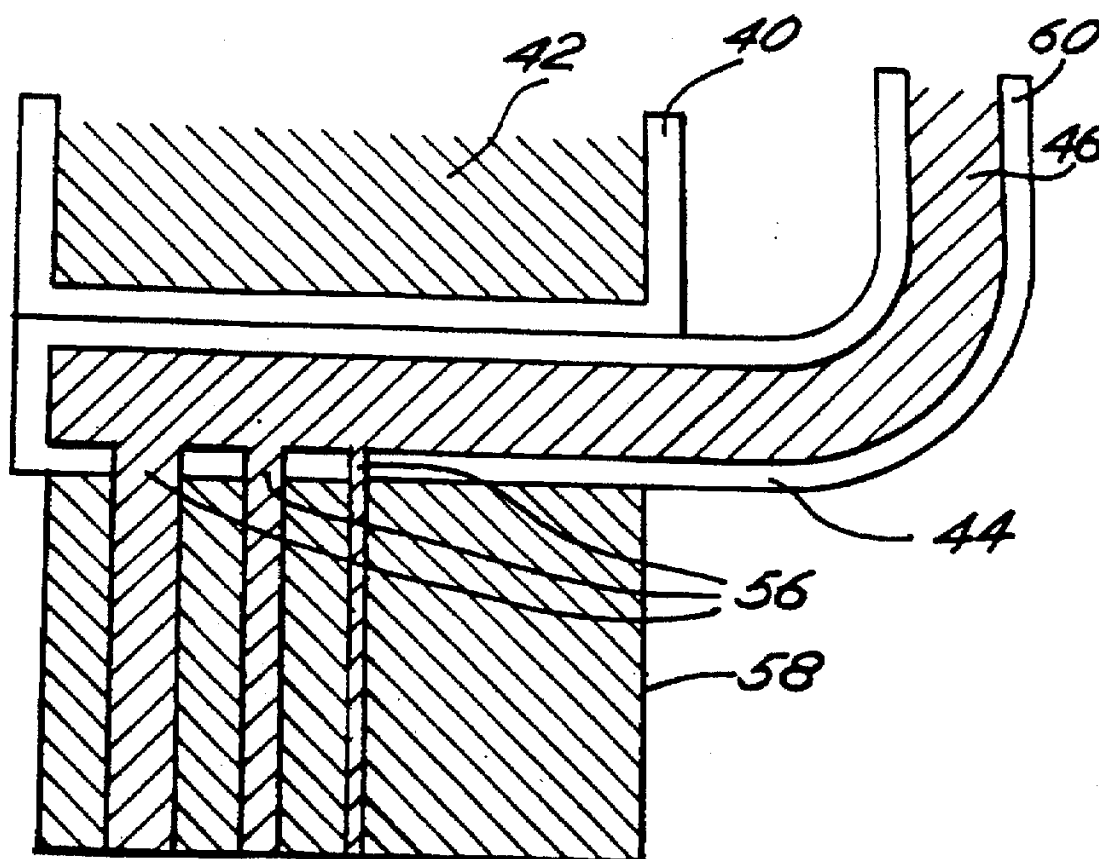
Publication numbers	Title	Current assignees
EP2875808 A1	Aqueous composition for preparing hard capsule, preparation method therefor, hard capsule, and method for recycling hard capsule scraps	LOTTE FINE CHEMICAL
EP-152292 A2	Acetaminophen gelatin capsules	R P SCHERER
US20150004226 A1	Gelatin /alginate delayed release capsules comprising omega-3 fatty acids, and methods and uses thereof	PRONOVA BIOPHARMA NORGE
EP1527902 A2	Method for producing a web of material	GIESECKE & DEVRIENT CURRENCY TECHNOLOGY
US4567714 A	Method and apparatus for forming capsules	CHASMAN SYDNEY ALEXANDER
US6295793 B1	Die rolls of a soft capsule manufacturing apparatus and a method of manufacturing soft capsules using the same	KAMATA
US6238616 B1	Method of manufacturing gelatin capsule containing powder or time release pellets	TIMECAPS
US4403461 A	Device for sealing hard gelatin capsules and for packing a liquid product dose in the thus sealed capsule	AUTOMATISME & TECHNIQUE, ...
FR2555972 A1	Capsules and other articles moulded under pressure, which can be used in particular for the pharmaceutical applications	PARKE DAVIS
EP3114037 A1	Method for the manufacture of capsules	MELCHIOR MATERIAL & LIFE SCIENCE
WO200107016 A1	Process for the production of soft capsules and coating materials and lubricants to be used therefor	FUJI OIL
US4817367 A	Apparatus for manufacturing gelatin capsule and method therefor	SANKYO
US6260332 B1	Apparatus for and method of manufacturing soft capsules	KAMATA
US20010036472 A1	Conversion of liquid filled gelatin capsules into controlled release systems by multiple coatings	ENCINAL PHARMACEUTICAL INVESTMENTS
EP2595610 A2	Improved apparatus and process for making soft gel capsules	PROCAPS
EP1263391 A1	Capsules	STANELCO RF TECHNOLOGIES
EP-129445 A1	Process for forming tamper-resistant tamper-indicative capsules .	AMERICAN PETROFINA, ...
EP-773858 A1	Method and apparatus for the manufacture or pharmaceutical cellulose capsules	3M
GB-702285 A	Improvements in or relating to method of and machine for manufacturing filled plastic capsules	AMERICAN CYANAMID
EP3594248 A1	Hydroxypropyl methyl cellulose hard capsules and process of manufacture	CAPSUGEL BELGIUM
EP1690518 A1	Seamless capsule manufacturing method , seamless capsule	FREUND

Publication numbers	Title	Current assignees
	manufacturing device, and seamless capsule	
EP-246804 A2	Improvements in capsules	SHIONOGI EUROPE
EP2011874 A1	Recombinant gelatin in vaccines	FIBROGEN
EP1617815 A2	Process for making gel films	DUPONT NUTRITION BIOSCIENCES
JP07133465 A	Method of recovering gelatin in producing soft capsule product	FUJI CAPSULE
FR1153998 A	Improvements to a method of manufacture of capsules and the capsules obtained by this method	R P SCHERER
KR20120033921 A	Soft capsule manufacturing device having a printing function capable of performing printing before supplying oil to a gelatin sheet	YOON SONG-CHOL
FR-889118 A	Method and device for the manufacture of seamless capsules , in particular gelatin , forming containers	DEN BERGH S EN JURGENS FABRIEK
EP2181691 A1	Antiperspirant compositions	UNILEVER

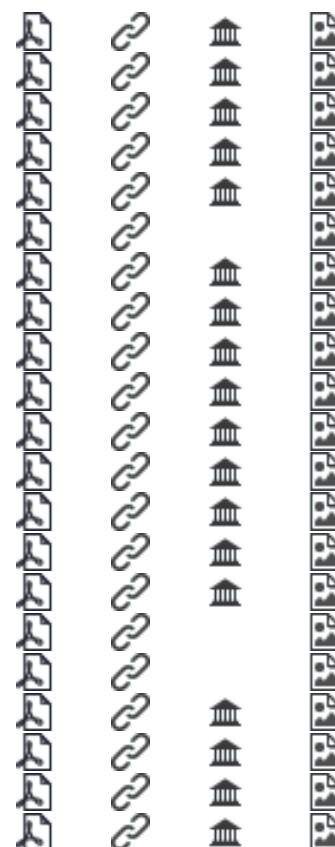
Family 1/100 - FAMPAT - ©Questel

Title

(EP-653979)

Apparatus and methods for forming patterned soft **gelatin capsules****Images****Publication numbers with kind code & date**

US6805818	B2	2004-10-19	US6805818
US20040170679	A1	2004-09-02	US20040170679
US20030127760	A1	2003-07-10	US20030127760
US6569363	B1	2003-05-27	US6569363
JP3205340	B2	2001-09-04	JP3205340
KR100286077	B1	2001-04-16	KR100286077
CA2142124	C	2001-02-27	CA2142124
US6022499	A	2000-02-08	US6022499
BR9306866	A	1998-12-08	BR9306866
DE69309934	T2	1997-11-06	DE69309934
US5672300	A	1997-09-30	US5672300
DE69309934	D1	1997-05-22	DE69309934
EP0653979	B1	1997-04-16	EP-653979
AU669568	B2	1996-06-13	AU-669568
JPH08502698	A	1996-03-26	JP08502698
KR19950702901	A	1995-08-23	KR19957002901
KR950702901	A	1995-08-23	KR19950702901
EP0653979	A1	1995-05-24	EP-653979
AU5002793	A	1994-03-03	AU9350027
CA2142124	A1	1994-02-17	CA2142124
WO94/03316	A1	1994-02-17	WO9403316



Abstract

(EP0653979)

An apparatus and a process useful for producing patterned **gelatin** ribbons for forming patterned soft **gelatin capsules** are disclosed. The apparatus and process use multiple spreader boxes (40, 60) to form a wide variety of possible patterns.

Inventors

SCHURIG GREGORY A

BEZAIRE BUD

RATKO MICHAEL

BAKER LAWRENCE A

MIKALIAN ROBERT

Latest standardized assignees - inventors removed

KEE ACTION SPORTS II NEW YORK NY

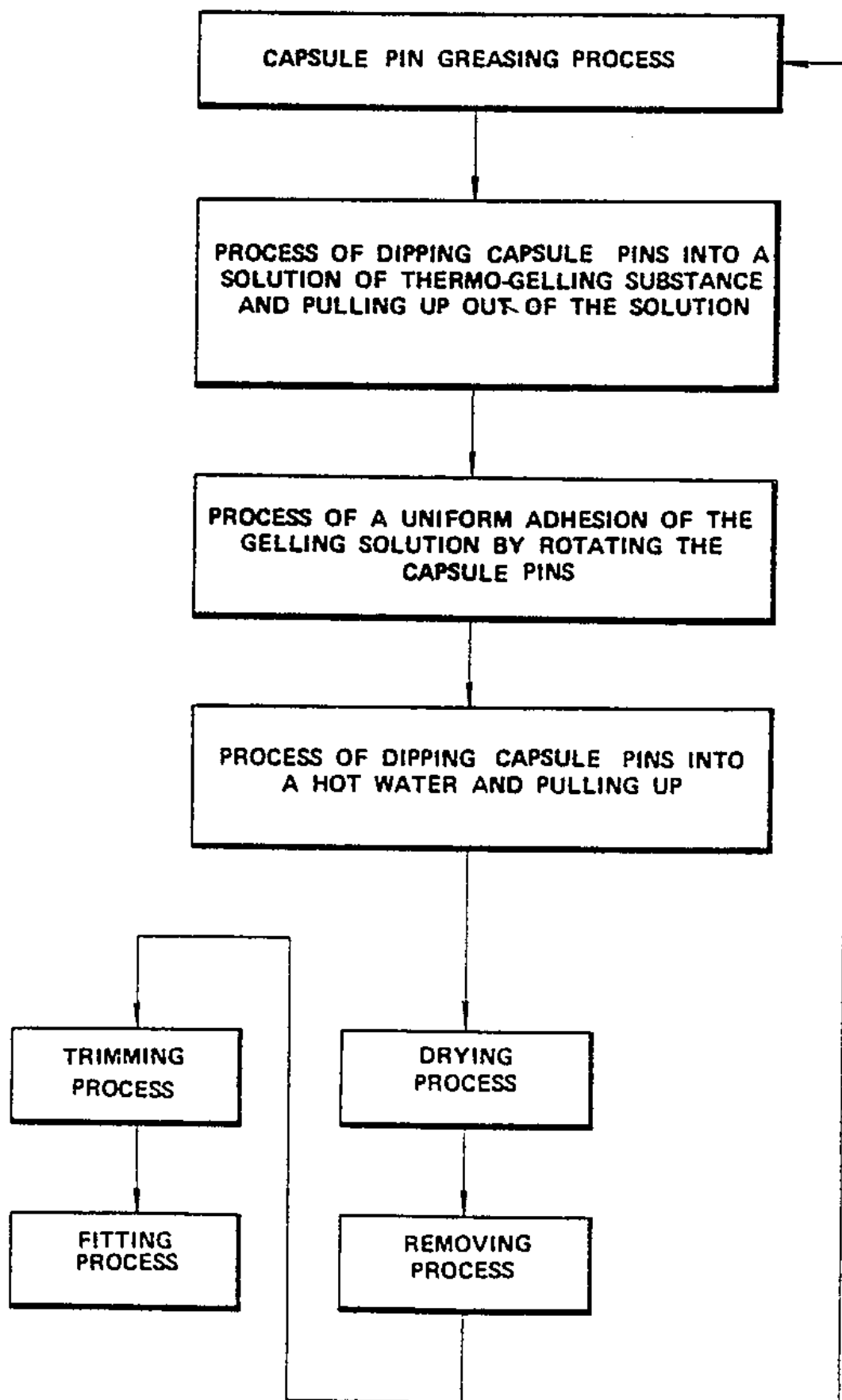
Family 2/100 - FAMPAT - ©Questel

Title

(EP-246693)

Method of **manufacturing** hard **capsules** for medicament use and apparatus of **manufacturing** them

Images



Publication numbers with kind code & date

JP1847843	C	1994-06-07	JP1847843
JP1845979	C	1994-05-25	JP1845979
JPH0561943	B2	1993-09-07	JP93061943
JPH0561944	B2	1993-09-07	JP93061944



DE3781201	T2	1993-04-01	DE3781201				
DE3781201	D1	1992-09-24	DE3781201				
EP0246693	B1	1992-08-19	EP-246693				
CA1286067	C	1991-07-16	CA1286067				
US5032074	A	1991-07-16	US5032074				
US4993137	A	1991-02-19	US4993137				
KR900000254	B1	1990-01-24	KR900000254				
AU592433	B2	1990-01-11	AU-592433				
JPS63127757	A	1988-05-31	JP63127757				
EP0246693	A3	1988-04-20	EP-246693				
KR870010854	A	1987-12-18	KR19870010854				
AU7270287	A	1987-12-17	AU8772702				
EP0246693	A2	1987-11-25	EP-246693				
JPS62266060	A	1987-11-18	JP62266060				

Abstract

(EP0246693)

The **method** of this invention for **manufacturing capsules** causes the solution of thermo-gelling material to gelatinize once, and then dries the gel. Therefore the process of **manufacturing capsules** is less affected by drying conditions, thus providing **capsules** of uniform wall thickness without wrinkle. In the apparatus of this invention, circulating capsule pins are dipped in the solution of thermo-gelling material, thus the solution adheres to the pins. And the pins are rotated upside down, thus thickness of the solution adhering to the pins becoming uniform. Then the pins are retained in the vessel maintained at a higher temperature than the gelling temperature of the solution, and the solution adhering to the pins is accelerated to gelatinize. Thus formed gel is dried through a drying device, and the dried gel, i.e. **capsules**, is removed from capsule pins.

Inventors

MUTO, HIROAKI

NISHIYAMA, YUICHI

CHIBA, TORU

ARAUME, KIYOSHI

Latest standardized assignees - inventors removed

SHIN ETSU CHEMICAL

Family 3/100 - FAMPAT - ©Questel

Title

(EP-784969)

Method and apparatus for **manufacturing** pharmaceutical cellulose **capsules** - removing capsule from pin

Images

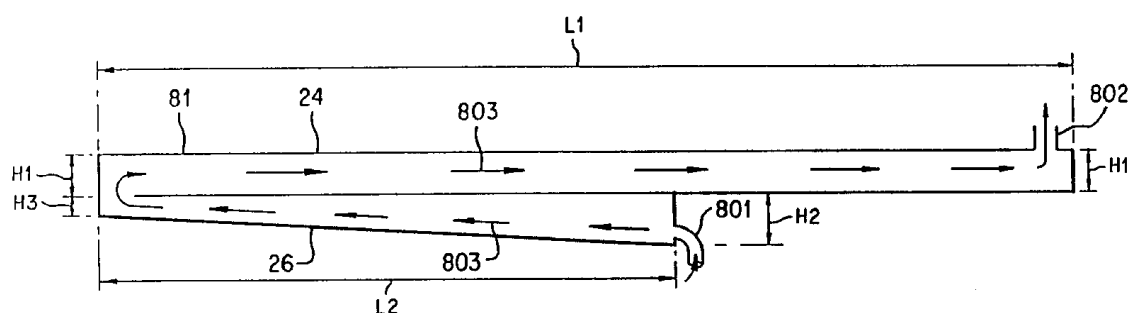


FIG. 8B

Publication numbers with kind code & date

RO118521	B1	2003-06-30	RO-118521				
DE69232809	T2	2003-06-18	DE69232809				
ES2181935	T3	2003-03-01	ES2181935				

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LV12557	B	2001-02-20	LV--12557				
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ES2143259	T3	2000-05-01	ES2143259				
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EP0781542	B1	2000-03-08	EP-781542				
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EP0587773	B1	1997-07-30	EP-587773				
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AU2159892	A	1993-01-08	AU9221598				
WO92/21311	A1	1992-12-10	WO9221311				
CA2108768	A1	1992-12-01	CA2108768				

Abstract

(EP0784969)

A **method** and apparatus for **manufacturing** pharmaceutical **capsules** use an aqueous solution of a thermogelling cellulose ether composition and use capsule body pins and capsule cap pins as molds. The **method** involves heating the pins, dipping the pins into the solution to cause the solution to gelatinize on the surface of the pins, removing the pins and drying the gelatinized solution on the surface of the pins to form capsule bodies and capsule caps. The capsule parts may have a thick wall and a stiffening ring and the capsule parts are removed by gripping. The invention solves the problem of cracking at the dip-line edge by breaking adhesion between the capsule part and the pin before removing the capsule part from the pin.

Inventors

GROSSWALD RALPH R
 ANDERSON JEFFORY B
 ANDREW CLAIR S

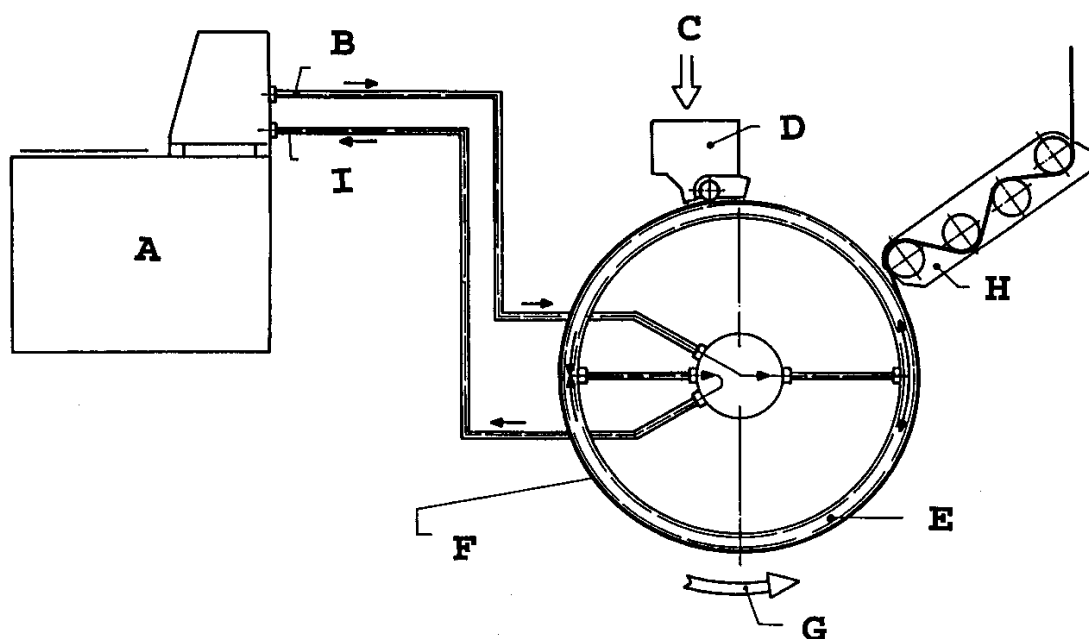
Latest standardized assignees - inventors removed

R P SCHERER TECHNOLOGIES

Family 4/100 - FAMPAT - ©Questel

Title

(EP1029538)

Soft **gelatin** capsule manufacture**Images****FIGURE 1****Publication numbers with kind code & date**

HU228201	B1	2013-01-28	HU-228201
ES2308955	T5	2012-04-03	ES2308955
DK1033128	T4	2012-03-19	DK1033128T
SI1033128	T2	2012-02-29	SI1033128T
EP1033128	B2	2011-11-23	EP1033128
FI120718	B	2010-02-15	FI-120718
HK1078478	A1	2009-08-21	HK1078478
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SI1033128	T1	2009-02-28	SI1033128T
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DE69435104	D1	2008-07-31	DE69435104
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EP1033128	B1	2008-06-18	EP1033128
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CN1636554	A	2005-07-13	CN1636554
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SK284268	B6	2004-12-01	SK-284268
EP1029538	A3	2003-10-15	EP1029538
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CZ290314	B6	2002-07-17	CZ-290314
NO312334	B1	2002-04-29	NO-312334
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RU94034106	A	1996-11-10	RU94034106				
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NZ264536	A	1996-09-25	NZ-264536				
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CZ236094	A3	1995-04-12	CZ9402360				
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[ITRM940613](#)

D0 1994-09-26

IT94RM0613

[NO943563](#)

D0 1994-09-26

NO9403563

**Abstract**

(EP1029538)

Soft **gelatin capsules** having a capsule shell comprising **gelatin**, plasticizers and, if desired or required, further auxiliary agents, and a capsule filling containing a solvent including a migrateable solvent such as 1,2-propyleneglycol as a solvent in the capsule filling and in the capsule shell. The manufacture of said **capsules** is improved, if in the process for making the soft **gelatin capsules** the **gelatin** bands are cooled with a liquid, and preferably with water.

Inventors

BROX WERNER

ZANDE HORST

MEINZER ARMIN DR

Latest standardized assignees - inventors removed

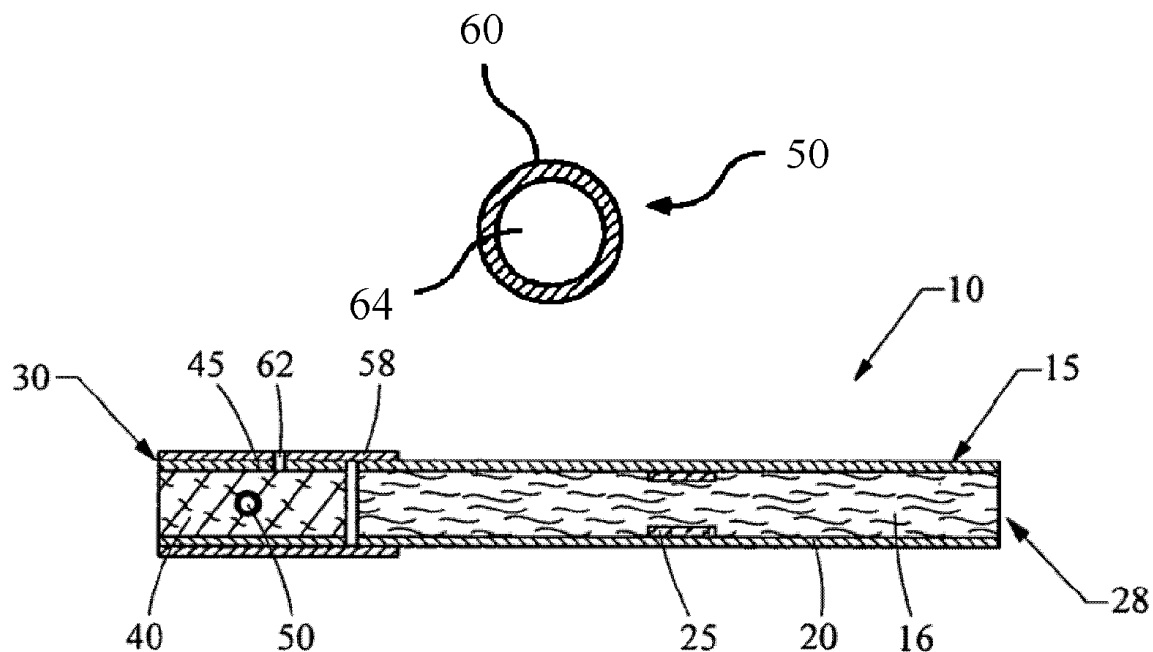
R P SCHERER

NOVARTIS

Family 5/100 - FAMPAT - ©Questel

Title

(EP2234711)

Process for **manufacturing** breakable **capsules** useful in tobacco products**Images****Publication numbers with kind code & date**[EP3299084](#)

B1 2019-07-17

EP3299084

[EP3299084](#)

A1 2018-03-28

EP3299084

[ES2657636](#)

T3 2018-03-06

ES2657636

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2009-08-06

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Abstract

(EP2234711)

A **method** for **manufacturing** breakable **capsules** (50) that are useful for incorporating into a tobacco product (10), such as smoking articles and smokeless tobacco products, is provided. The **method** comprises forming a plurality of droplets comprising a core composition and a coating composition. The coating composition comprises a material that gels in contact with a multivalent ion. The **method** also comprises introducing the plurality of droplets in a first aqueous solution having a first concentration of a first multivalent ion such that the coating composition of the plurality of droplets gels to form a plurality of raw **capsules**. The **method** further comprises introducing the plurality of raw **capsules** in a second aqueous solution having a second concentration of a second multivalent ion, wherein the second concentration is higher than the first concentration, such that the coating composition of the plurality of raw **capsules** hardens to form a plurality of breakable **capsules** (50).

Inventors

ZHANG WENHUI

Latest standardized assignees - inventors removed

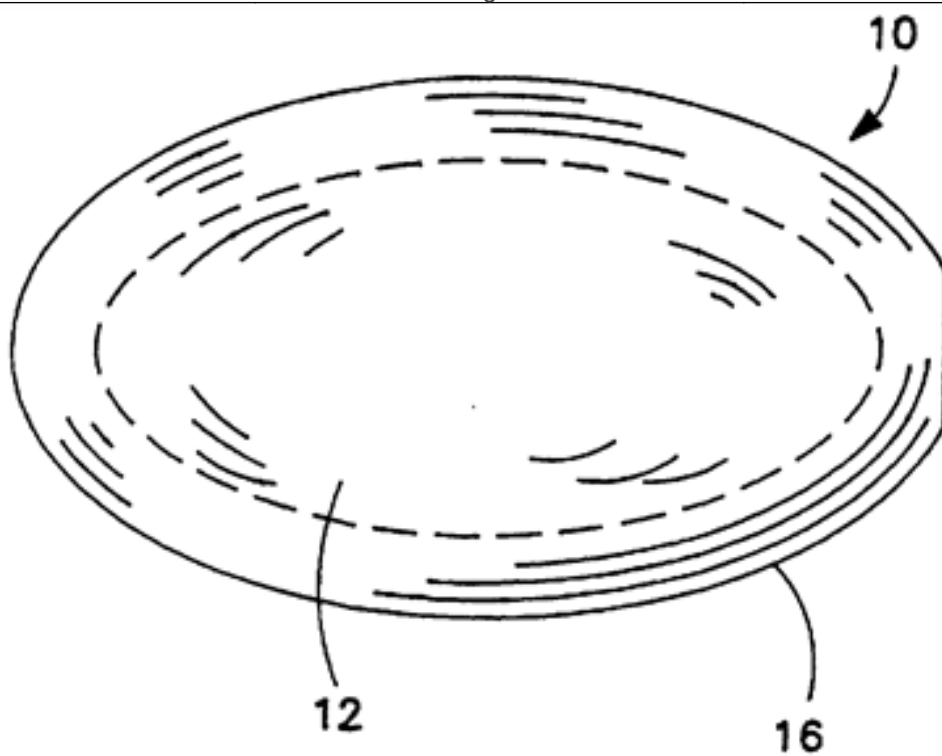
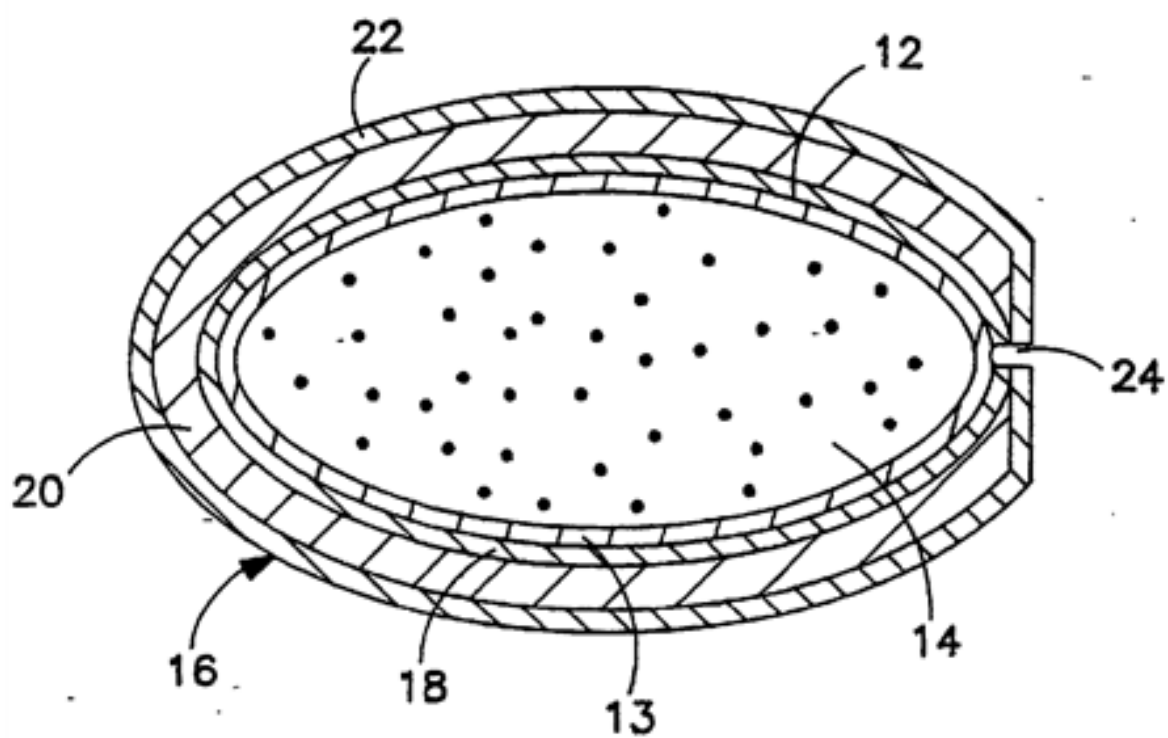
REYNOLDS TOBACCO

Family 6/100 - FAMPAT - ©Questel

Title

(EP1140012)

Conversion of liquid filled **gelatin capsules** into controlled release systems by multiple coatings**Images**

**FIG. 1****FIG 2**

Publication numbers with kind code & date

CA2354472	C	2009-02-24	CA2354472	                                    	                                    	                                    	                                    
IL143691	B	2009-02-11	IL-143691	    			
KR100634069	B1	2006-10-16	KR100634069	                                    			
HU0104721	A3	2006-07-28	HU200104721	                                    			
HK1040632	A1	2004-12-31	HK1040632	                                    			
AU765909	C	2004-09-23	AU-765909	                                    			
ES2213404	T3	2004-08-16	ES2213404	                                    			
CN1161101	C	2004-08-11	CN1161101C	                                    			
DE69915346	T2	2004-07-22	DE69915346	                                    			
DK1140012	T3	2004-07-12	DK1140012T	                                    			
PT1140012	E	2004-05-31	PT1140012	      			

Abstract

(EP1140012)

A dosage form comprising a **gelatin** capsule formed with a composite wall and containing a liquid, active agent formulation where the wall comprises a barrier layer formed over the external surface of the **gelatin** capsule, and expandable layer formed over the barrier layer and a semipermeable layer formed over the expandable layer is described. The dosage forms and methods provide for the conversion of standard **gelatin**, liquid formulation **capsules** into controlled, release dosage forms that permit the controlled release of the active agent into the environment of use over time.

Inventors

DONG LIANG C

WAN JASON

WONG PATRICK S-L

Latest standardized assignees - inventors removed

ALZA

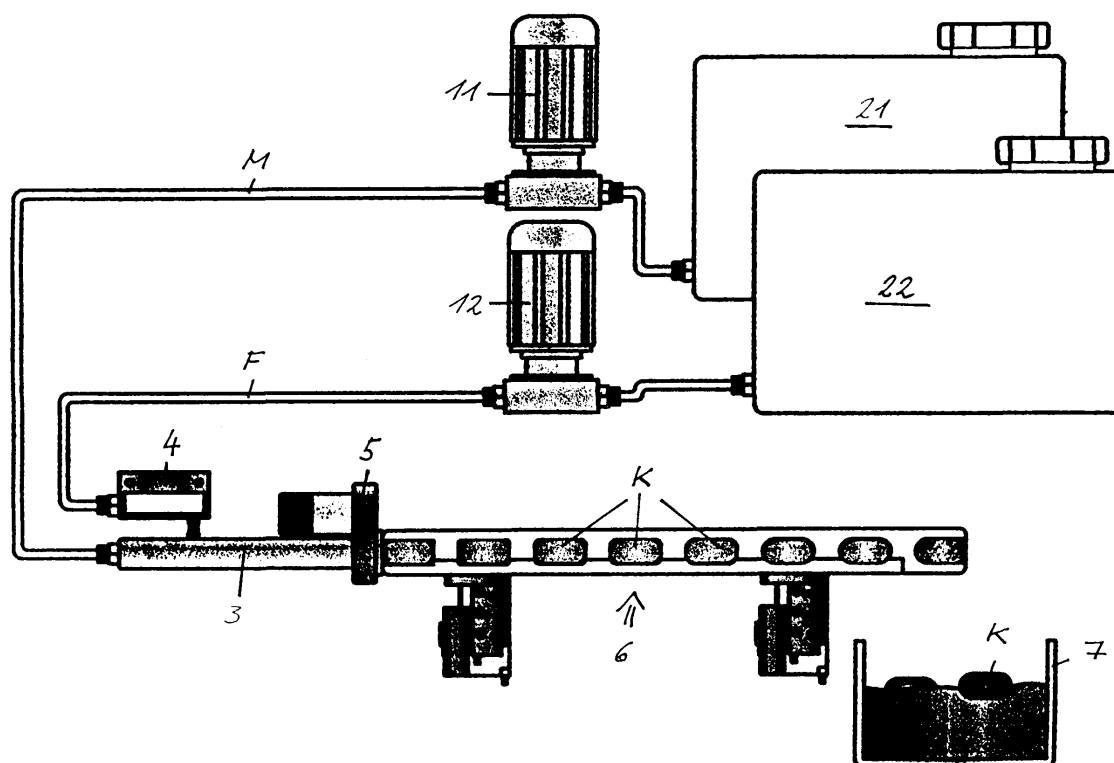
Family 7/100 - FAMPAT - ©Questel

Title

(EP1066013)

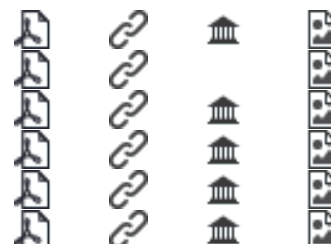
Method for producing gelatin capsules

Images



Publication numbers with kind code & date

JP2002524204	A	2002-08-06	JP2002524204
KR20010024647	A	2001-03-26	KR20010024647
DE19856381	C2	2001-02-08	DE19856381
EP1066013	A1	2001-01-10	EP1066013
DE19856381	A1	2000-05-31	DE19856381
WO00/15173	A1	2000-03-23	WO200015173



Abstract

(EP1066013)

The invention relates to a **method** for producing **capsules** whose shell material consists of soft **gelatin**, starch or such like and which are filled with at least one filling material, such as an active ingredient and/or flavouring agent. According to the invention the filling material is introduced into the shell material, after which the **capsules** filled with filling material are produced. The invention also relates to a device for carrying out this **method**. Said **method** is characterized in that, for example, the shell material is delivered in the form of a strand whose outer contours correspond to the maximum cross-section of the capsule to be produced, and in that to separate the **capsules** filled with filling material from the strand filled with filling material, a separating-valve unit is used which has a channel which is designed for the strand and can be opened and closed in a controlled manner.

Inventors

VOSS GUNTER MEINHARDT

Family 8/100 - FAMPAT - ©Questel

Title

(EP-622408)

Composition and process for **gelatin-free soft capsules**

Publication numbers with kind code & date

JP3990741	B2	2007-07-27	JP3990741
DE69431017	T2	2003-03-20	DE69431017
ES2180558	T3	2003-02-16	ES2180558



DK0622408	T3	2002-11-04	DK-622408T			
DE69431017	D1	2002-08-29	DE69431017			
EP0622408	B1	2002-07-24	EP-622408			
AU688754	B2	1998-03-19	AU-688754			
JP6329833	A	1994-11-29	JP06329833			
AU6067694	A	1994-11-03	AU9460676			
EP0622408	A1	1994-11-02	EP-622408			
CA2121555	A1	1994-10-28	CA2121555			
US5342626	A	1994-08-30	US5342626			

Abstract

(EP0622408)

The present invention relates to a polymer composition comprised of gellan, carrageenan and mannan gums and a process for producing flexible films for encapsulation comprising the gellan, carrageenan and mannan gum composition. The mannan gums include the galactomannans and the glucomannans. Advantageously, soil **capsules** of the above composition are produced using the novel process. The composition comprises a blend of a gellan gum: (carrageenan/mannan gum) wherein the gellan gum concentration ranges from about 0.1 to 50 weight percent and the ratio of carrageenan/locust bean gum ranges from 3:1 to 1:3. Additional reagents are added to this gum blend to form a film-forming polymer composition useful in the production of **gelatin**-free **capsules** or microcapsules.

Inventors

WINSTON PHILIP E JR

MISKIEL FRANK J

VALLI RAYMOND C

Latest standardized assignees - inventors removed

CP KELCO

Family 9/100 - FAMPAT - ©Questel

Title

(EP2793867)

Gelatin/alginate delayed release **capsules** comprising omega-3 fatty acids, and methods and uses thereof**Images**

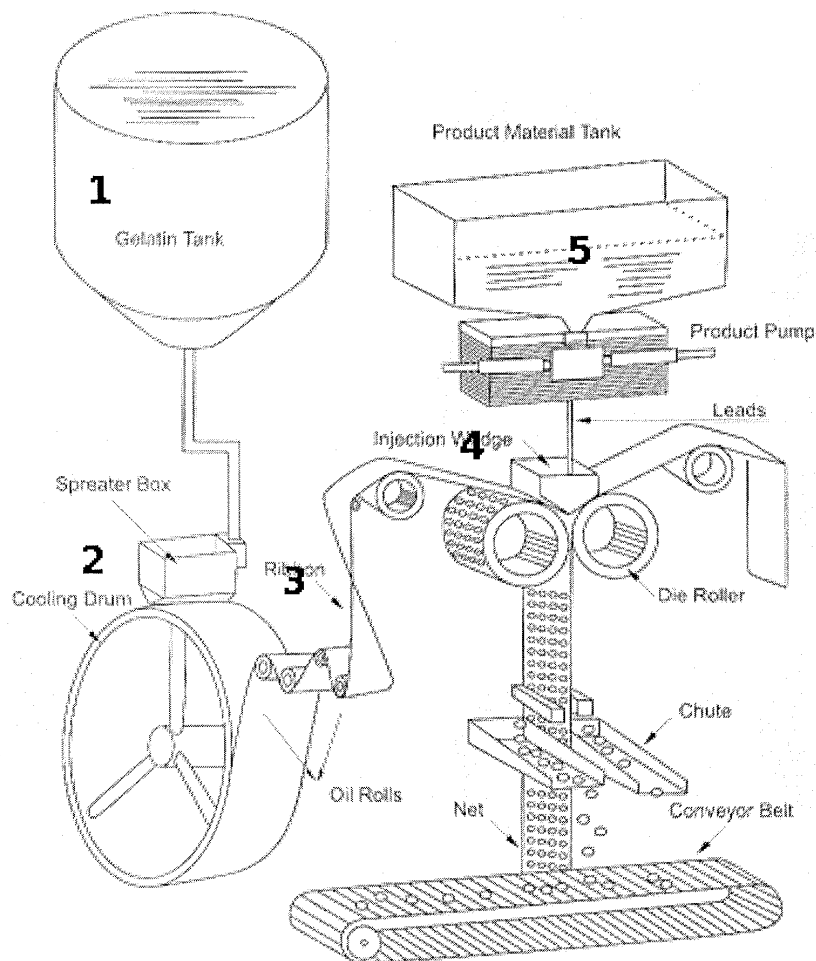


FIGURE 1

Publication numbers with kind code & date

EP2793867	A2	2014-10-29	EP2793867
AR089441	A1	2014-08-20	AR--89441
WO2013/093630	A3	2013-12-27	WO201393630
TW201343203	A	2013-11-01	TW201343203
WO2013/093630	A2	2013-06-27	WO201393630

**Abstract**

(EP2793867)

The present disclosure relates to delayed release **capsules** and methods of **manufacturing the capsules**. The **capsules** comprise a capsule shell comprising a combination of **gelatin** and alginate, wherein the capsule shell encapsulates or is filled with at least one agent, and the delayed release **capsules** are chosen from soft **capsules** and hard **capsules**.

Inventors

BAES ERIK

WOLD IDA MARIE

Latest standardized assignees - inventors removed

PRONOVA BIOPHARMA NORGE

Family 10/100 - FAMPAT - ©Questel

Title

(EP-401832)

Method for preparing hard **capsules** for medicaments**Images**

FIG. 1

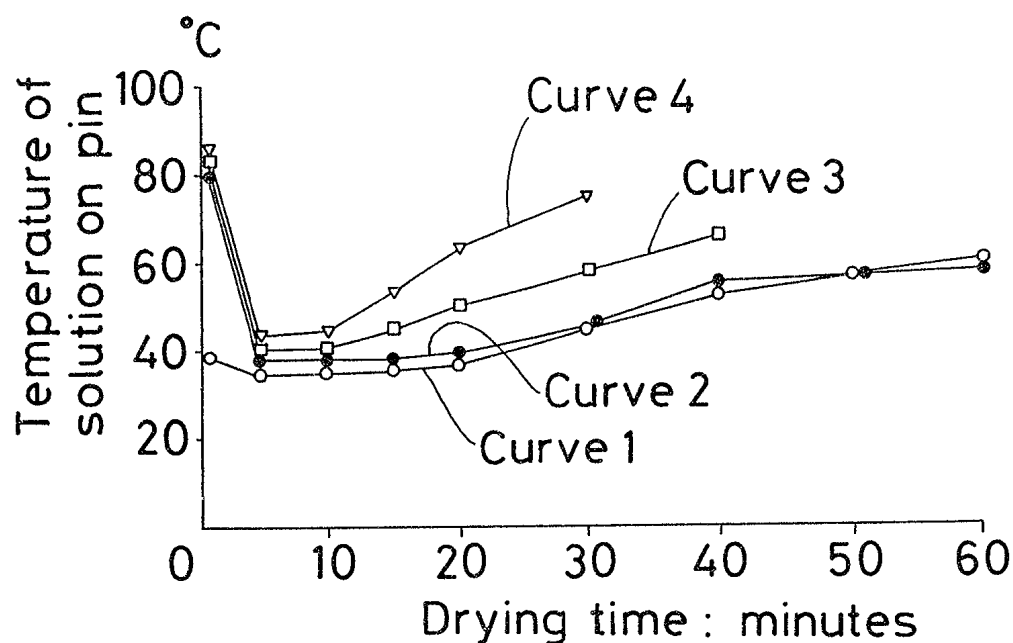
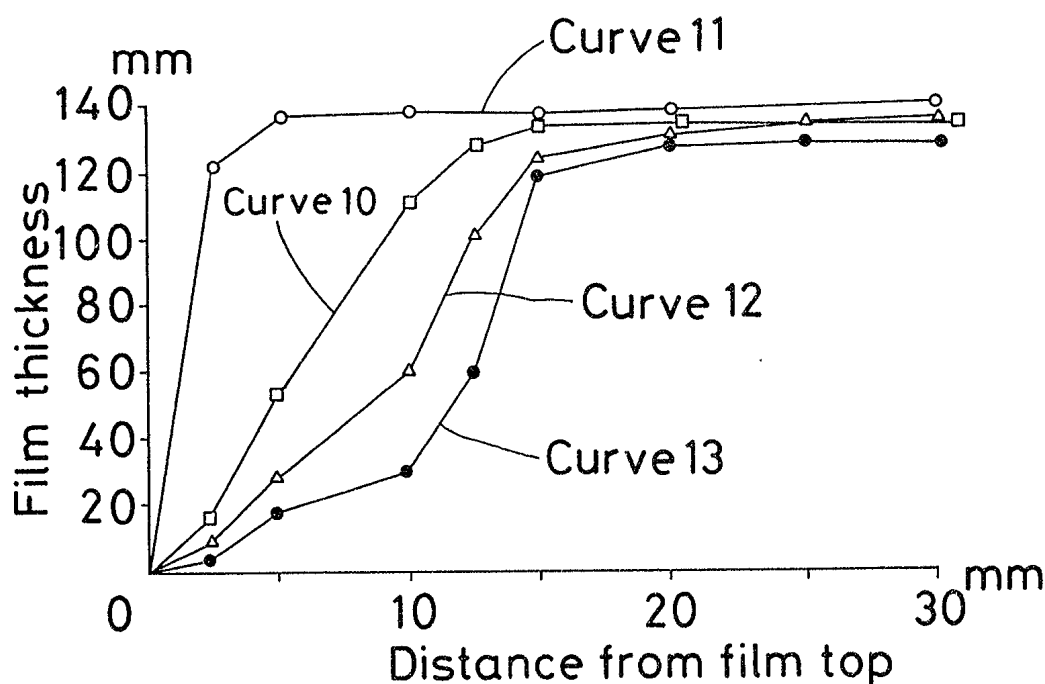


FIG. 2



PATENT AGENTS

Swabey Ogilvy Renault

Publication numbers with kind code & date

JP1909250	C	1995-03-09	JP1909250
JP6034807	B2	1994-05-11	JP94034807
EP0401832	A3	1991-05-15	EP-401832
JP03009755	A	1991-01-17	JP03009755
EP0401832	A2	1990-12-12	EP-401832



CA2018536

A1

1990-12-08

CA2018536

**Abstract**

(EP0401832)

Method for preparing hard **capsules** for medicaments is herein disclosed and the **method** comprises the steps of immersing pins each having an external shape corresponding to that of a body or a cap of the capsule in an aqueous solution of hydroxypropylmethyl cellulose having structural viscosity as one of its flow characteristics, pulling up the pins whose surfaces are covered with the aqueous solution, drying the solution to form molded products of the bodies or the caps, releasing the molded products from the pins, cutting the resulting products into pieces having a desired length and then fitting the resulting bodies into the resulting caps. The **method** makes it possible to easily provide hard **capsules** which have uniform thickness of the wall thereof. Thus, the resulting **capsules** are not broken during filling the medicaments therein.

Inventors

ARAUME, KIYOSHI, SHIN-ETSU CHEMICAL CO., LTD.

MUTO, HIROAKI, SHIN-ETSU CHEMICAL CO., LTD.

NISHIYAMA, YUSCHI, SHIN-ETSU CHEMICAL CO., LTD.

CHIBA, TOHRU, SHIN-ETSU CHEMICAL CO., LTD.

Latest standardized assignees - inventors removed

SHIN ETSU CHEMICAL

Family 11/100 - FAMPAT - ©Questel

Title

(EP1001751)

Aqueous viscous compositions, whether clear or not, for making soft or hard **capsules**, and **method** for making films for such **capsules**

Publication numbers with kind code & date

DE69839121	T2	2009-02-12	DE69839121
ES2302356	T3	2008-07-01	ES2302356
DK1001751	T3	2008-06-09	DK1001751T
DE69839121	D1	2008-03-27	DE69839121
AT385784	T	2008-03-15	ATE385784
EP1001751	B1	2008-02-13	EP1001751
JP3996346	B2	2007-08-10	JP3996346
CA2300281	C	2007-04-10	CA2300281
KR100549651	B1	2006-02-08	KR100549651
JP2002517378	A	2002-06-18	JP2002517378
AU744704	B2	2002-02-28	AU-744704
US6331205	B1	2001-12-18	US6331205
KR20010022737	A	2001-03-26	KR20010022737
BR9815589	A	2001-01-02	BR9815589
EP1001751	A1	2000-05-24	EP1001751
FR2767070	B1	1999-09-17	FR2767070
AU8988498	A	1999-03-01	AU8988498
CA2300281	A1	1999-02-18	CA2300281
WO99/07347	A1	1999-02-18	WO99/07347
FR2767070	A1	1999-02-12	FR2767070

**Abstract**

(EP1001751)

The invention concerns aqueous viscous compositions, whether clear or not, for making soft or hard **capsules**, and **method** for making films for such **capsules** (gelled **capsules**). Said compositions are in particular characterised in that they contain a single gelling agent consisting of a carrageenan, preferably an iota carrageenan, whereof the concentration in the medium is higher than 5 % of the medium which can be aqueous and oily. The invention also concerns a **method** for making films

for such **capsules** which consists in dehydrating said films by oven drying or lyophilisation. The invention is applicable in pharmaceuticals, cosmetics and dietetics.

Inventors

PARIS LAURENCE

VIAUD FABRICE

Latest standardized assignees - inventors removed

R P SCHERER TECHNOLOGIES

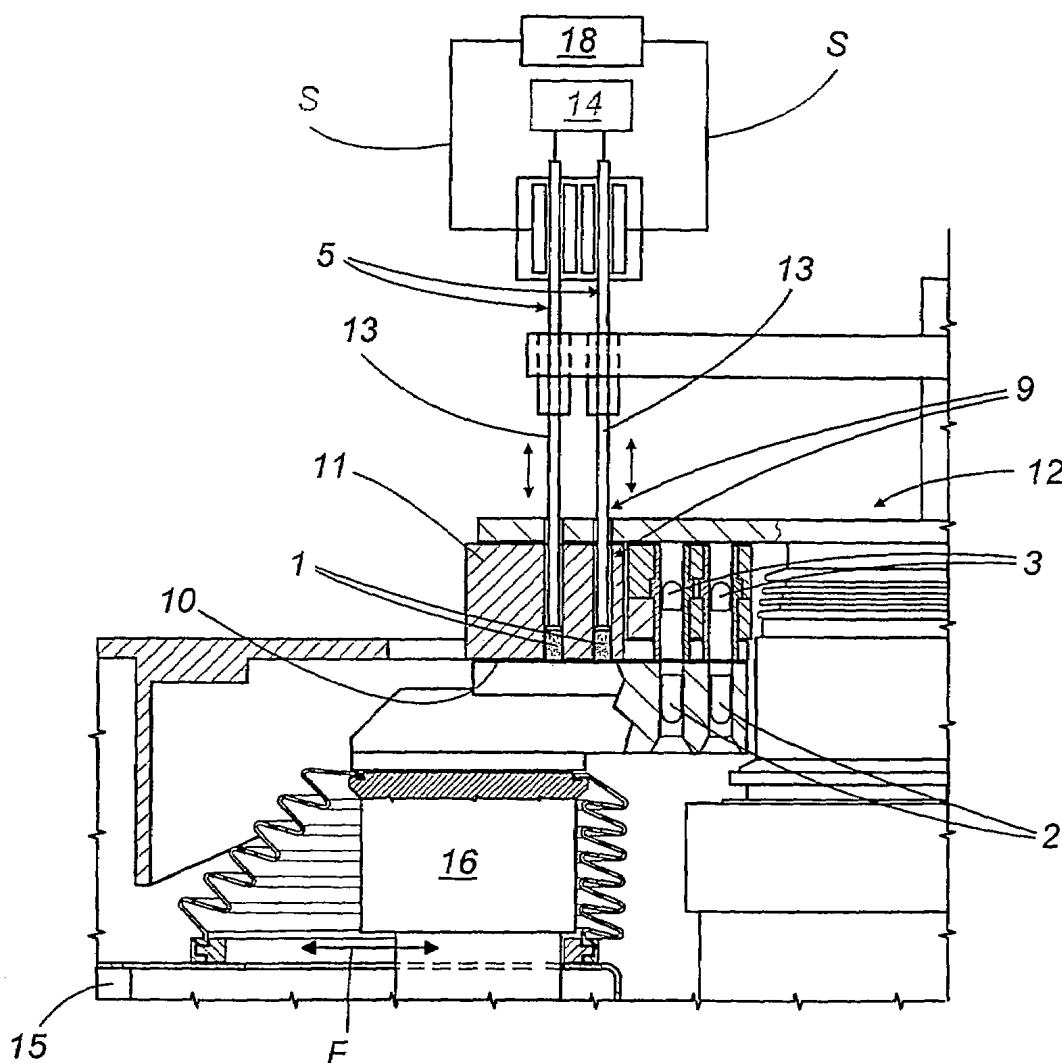
Family 12/100 - FAMPAT - ©Questel

Title

(EP1755523)

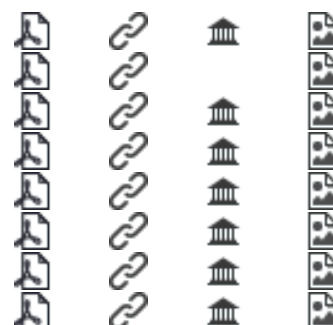
A capsule filling machine and method for producing hard gelating capsules

Images

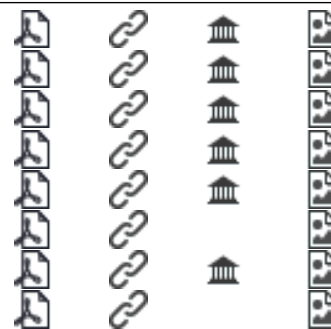


Publication numbers with kind code & date

ES2371005	T3	2011-12-26	ES2371005
AT516793	T	2011-08-15	ATE516793
EP1755523	B1	2011-07-20	EP1755523
JP4643637	B2	2010-12-10	JP4643637
CN1956695	B	2010-11-10	CN1956695B
US20100132313	A1	2010-06-03	US20100132313
US7677016	B2	2010-03-16	US7677016
IN239112	B	2010-03-12	IN-239112



US20080168750	A1	2008-07-17	US20080168750
JP2007537814	A	2007-12-27	JP2007537814
IN2985/KOLNP/2006	A	2007-06-08	IN2006KN02985
CN1956695	A	2007-05-02	CN1956695
EP1755523	A1	2007-02-28	EP1755523
AR050334	A1	2006-10-18	AR--50334
WO2005/112868	A1	2005-12-01	WO2005112868
ITBO20040310	A1	2004-08-18	IT2004BO0310



Abstract

(EP1755523)

A capsule filling machine (100) for the production of hard **gelatin capsules** (C) of the type with lid (3) and body (2) containing a quantity (1) of pharmaceutical material comprises a rotaty turret or carousel (15) which defines at least one capsule (C) handling line (L) and on which the following are positioned, one after the other : at least one station (6) for feeding empty **capsules** (C); at least one opening station (20) where the capsule bodies (2) are separated from the lids (3) to form two separate rows of capsule bodies (2) and lids (3); at least one station (7) for feeding and dosing the quantities (1) of pharmaceutical material to be filled into the capsule bodies (2); and at least one station (8) for closing the **capsules** (C) by placing a lid (3) over each respective body (2); the machine (100) also comprises means (9) for detecting and volumetrically checking the quantity (1) of pharmaceutical material filled into each capsule body (2), the detecting and checking means (9) comprise transducer means (5) for measuring the volume of said quantities (1) before they are filled into the capsule bodies (2).

Inventors

TREBBI ROBERTO

Latest standardized assignees - inventors removed

IMA INDUSTRIA MACCHINE AUTOMATICHE

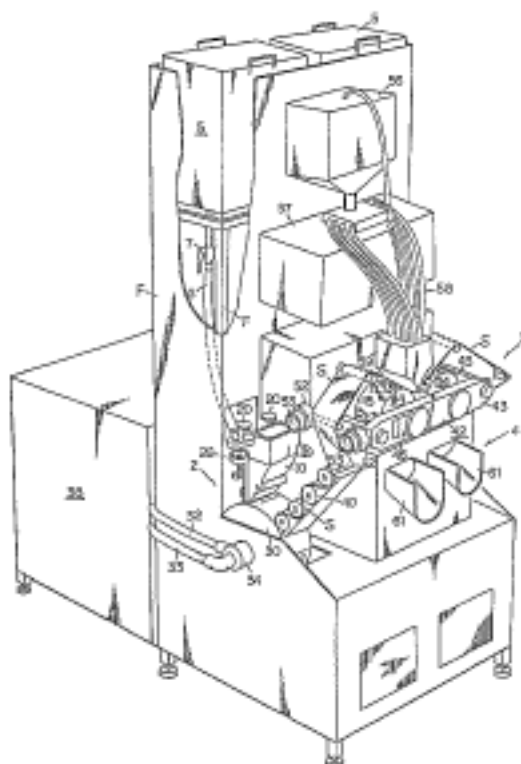
Family 13/100 - FAMPAT - ©Questel

Title

(CA1279163)

Apparatus for **manufacturing gelatin** capsule and **method** therefor

Images



Publication numbers with kind code & date

CA1279163

C

1991-01-22

CA1279163

**Abstract**

(CA1279163)

Apparatus for **manufacturing gelatin capsules** and **method** therefor are provided. The apparatus comprises a **gelatin** sheet forming mechanism which includes a rotatable cooling drum, a **gelatin** capsule forming mechanism which includes a pair of **die** rolls and a **gelatin** capsule recovery mechanism. The inner space of the cooling drum is provided with a coolant. The thickness of the **gelatin** sheet and the gap between the **die** rolls are numerically indicated respectively. The driving mechanism for the **gelatin** capsule recovery mechanism is independent from the other driving mechanism provided in the apparatus.

Inventors

ISHIKAWA TOSHIMITSU

TAMURA KATSUhide

Latest standardized assignees - inventors removed

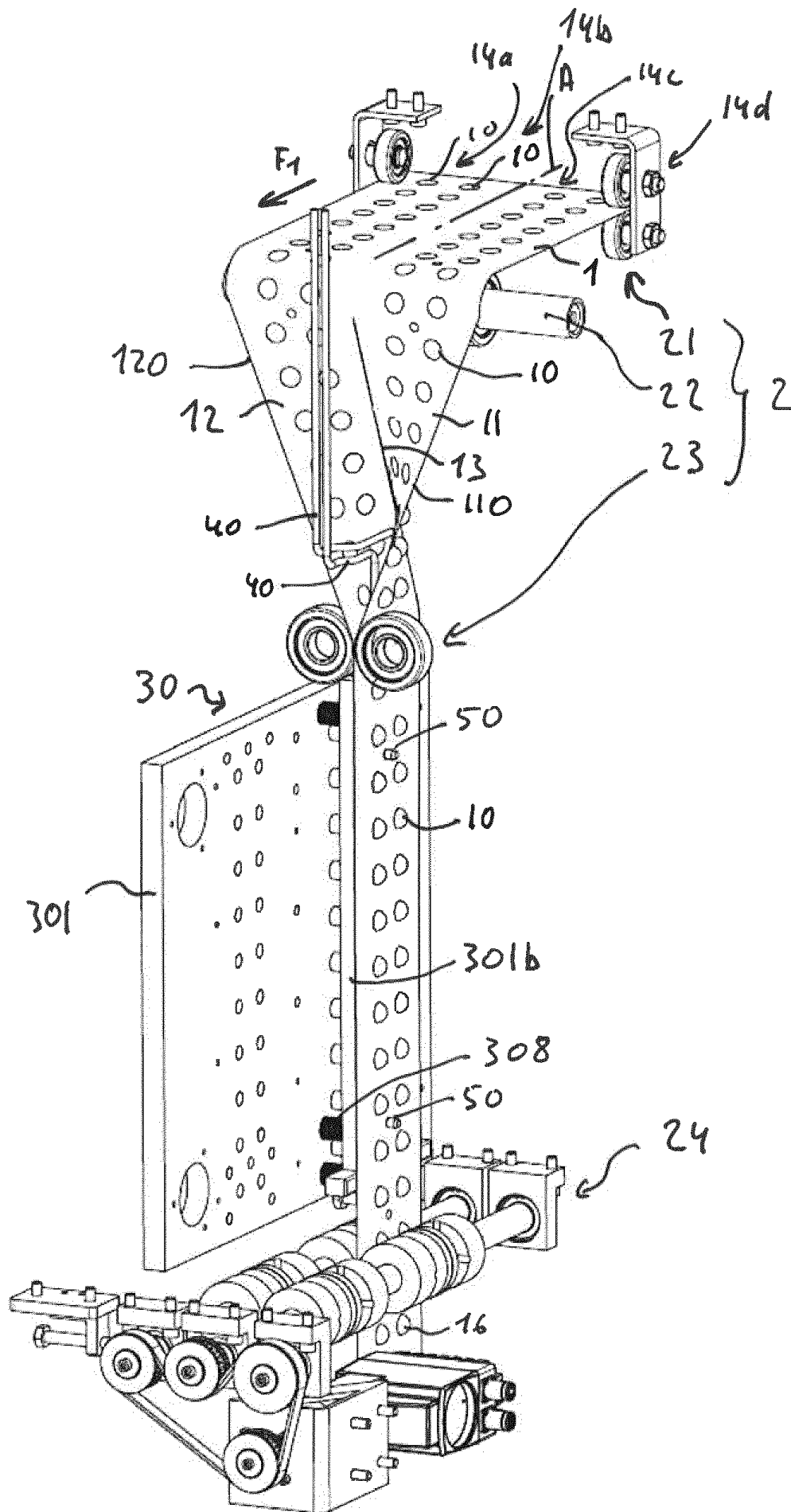
SANKYO

Family 14/100 - FAMPAT - ©Questel

Title

(WO201416510)

Method and machine to form **capsules** containing a fluid**Images**



Publication numbers with kind code & date

FR2993864	B1	2015-04-24	FR2993864
FR2993864	A1	2014-01-31	FR2993864
WO2014/016510	A1	2014-01-30	WO201416510

**Abstract**

(WO2014/016510)

According to a **method** of producing **capsules** (16) containing a fluid, a step-by-step **method** comprises the following steps: receipt of two sheets (11, 12) of thermoplastic film, each sheet (11, 12) comprising at least one column (14a, 14b, 14c, 14d) of shaped cavities (10); movement of the two sheets (11, 12) to align the respective cavities (10) of each sheet and gapping of the sheets (11, 12) via pairs of bars (301, 302, 303) which successively clamp the sheets (11, 12) on each side of the pairs of columns of cavities (10), filling of the pocket delimited between the two pairs of bars (301, 302, 303) with fluid to fill the cavities (10), welding of the sheets (11, 12) around the cavities (10) to form the **capsules** (16). Machine implementing the **method**

Inventors

DELHAYE DAVID

CROUE JEAN-BAPTISTE

BASTIEN ANTOINE

BIGOT REGIS

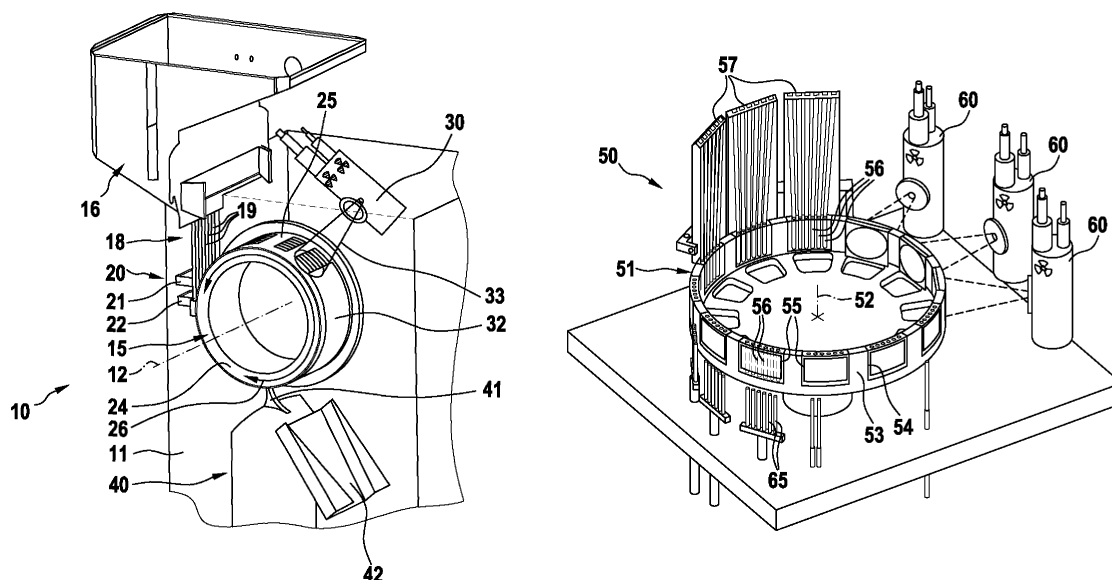
Latest standardized assignees - inventors removed

POLYTEK INNOVATIONS

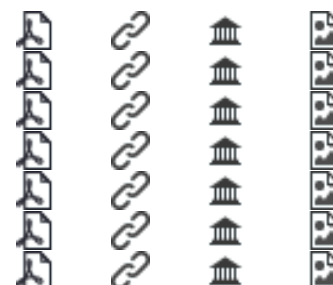
Family 15/100 - FAMPAT - ©Questel

Title

(EP2697123)

Device for checking pharmaceutical products, in particular hard **gelatin capsules****Images****Publication numbers with kind code & date**

CN103459254	B	2016-10-12	CN103459254B
JP5941980	B2	2016-05-27	JP5941980
ES2555577	T3	2016-01-05	ES2555577
EP2697123	B1	2015-11-04	EP2697123
US9042515	B2	2015-05-26	US9042515
IN8291/DELNP/2013	A	2014-12-19	IN2013DN08291
JP2014514077	A	2014-06-19	JP2014514077



US20140050299	A1	2014-02-20	US20140050299				
EP2697123	A1	2014-02-19	EP2697123				
CN103459254	A	2013-12-18	CN103459254				
DE102011007277	A1	2012-10-18	DE102011007277				
WO2012/139811	A1	2012-10-18	WO2012139811				

Abstract

(EP2697123)

The invention relates to a device (10; 10a;10b; 10c; 50) for checking pharmaceutical products (1), in particular hard **gelatin capsules**, by means of at least one radiation source (30; 60) preferably embodied as an X-ray source, and a conveying device which conveys the products (1) in a clocked manner in a radiation area (31) of the radiation source (30; 60). The radiation emitted by the radiation source (30; 60) penetrating the products (1) preferably perpendicular to the longitudinal axes thereof (2), and the radiation is captured on the side of the products (1) opposite the radiation source (30) by means of at least one sensor element (35) which is coupled to an evaluation device (36). The invention is characterised in that the conveyor device is embodied as a conveyor wheel (15; 15a; 51) which can rotate in a stepped manner about an axis (12; 52), and the products (1) are arranged, whilst being conveyed in the radiation area (31), in receiving areas (28; 37; 56) of the conveyor wheel (15; 5a; 51).

Inventors

SCHLIPF JENS

RUNFT WERNER

MAGA IULIAN

VOGT MARTIN

Latest standardized assignees - inventors removed

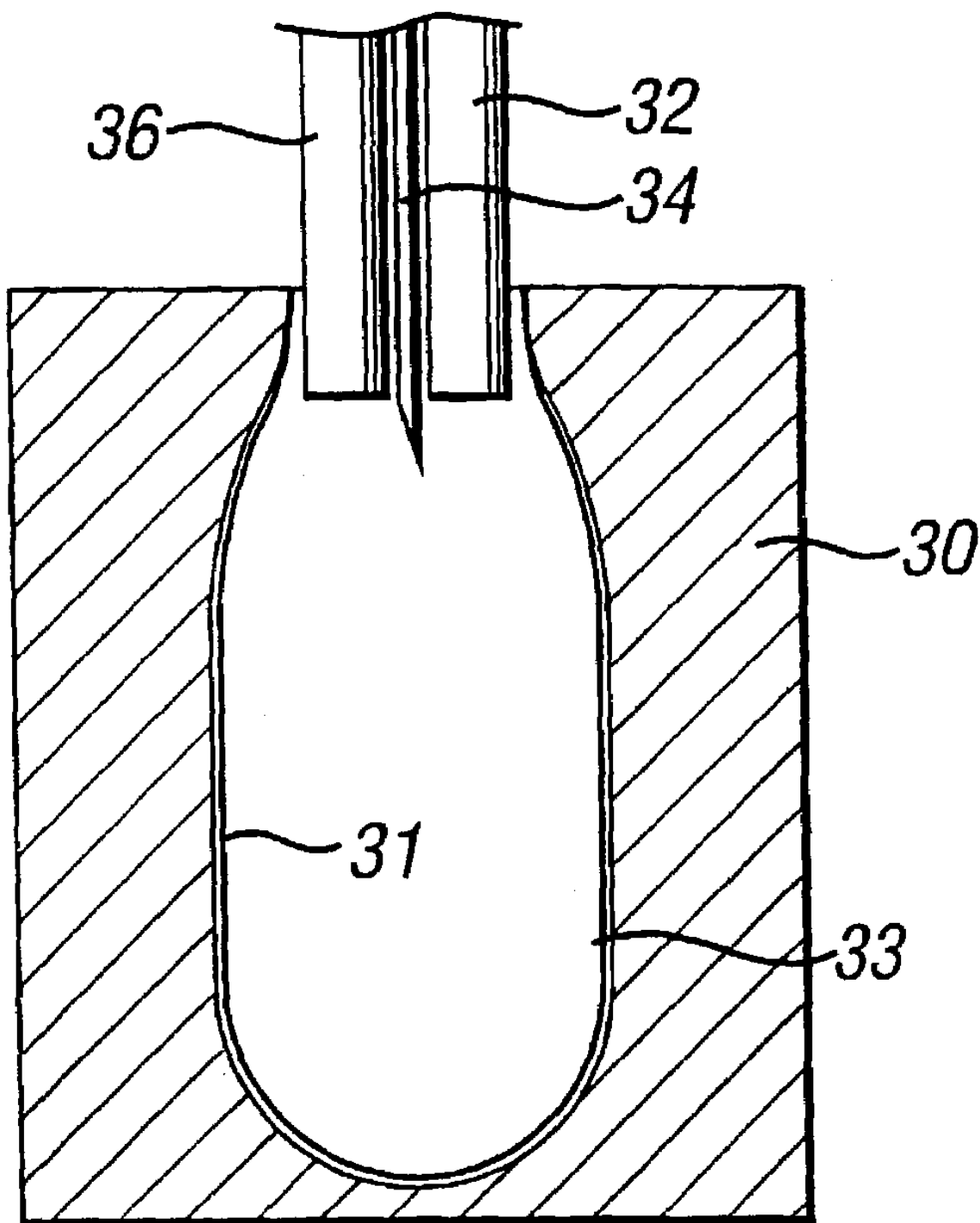
ROBERT BOSCH

Family 16/100 - FAMPAT - ©Questel

Title

(EP1719492)

Method and apparatus for blowmolding **capsules** of polyvinylalcohol and blowmolded polyvinylalcohol **capsules****Images**


Publication numbers with kind code & date

MY136678	A	2008-11-28	MY-136678
IN210380	B	2007-10-05	IN-210380
CN101002720	A	2007-07-25	CN101002720
US20070160662	A1	2007-07-12	US20070160662
ES2276768	T3	2007-07-01	ES2276768
IN0995/KOL/2006	A	2007-06-29	IN2006KO00995
CN1321794	C	2007-06-20	CN1321794C
DE60124077	T2	2007-05-31	DE60124077
US7195777	B2	2007-03-27	US7195777
PT1261470	E	2007-02-28	PT1261470
DE60124077	D1	2006-12-07	DE60124077
AT343467	T	2006-11-15	ATE343467
EP1719492	A2	2006-11-08	EP1719492



EP1261470	B1	2006-10-25	EP1261470				
AU2001235855	B9	2006-01-12	AU2001235855				
AU2001235855	B2	2005-08-04	AU2001235855				
IN1230/KOLNP/2002	A	2004-04-17	IN2002KN01230				
JP2003525145	A	2003-08-26	JP2003525145				
US20030152619	A1	2003-08-14	US20030152619				
CN1427765	A	2003-07-02	CN1427765				
EP1261470	A1	2002-12-04	EP1261470				
AU3585501	A	2001-09-12	AU200135855				
CA2401596	A1	2001-09-07	CA2401596				
WO01/64421	A1	2001-09-07	WO200164421				
GB0105092	D0	2001-04-18	GB200105092				
GB0005016	D0	2000-04-26	GB200005016				

Abstract

(EP1719492)

A capsule is formed from a PVA composition by blow moulding. Such **capsules** can at last provide a viable alternative to **gelatin** for bio-degradeable capsule containing a pharmaceutical or consumable or other substance, for example a detergent. The **capsules** may contain solid or liquid substances. Blow moulding apparatus suitable for forming such **capsules** is also disclosed and claimed

Inventors

STEVENS HENRY GUY

DAWSON JOHN COLIN

Latest standardized assignees - inventors removed

PVAXX RESEARCH & DEVELOPMENT

Family 17/100 - FAMPAT - ©Questel

Title

(EP2809440)

Capsules containing mammalian cells**Images**

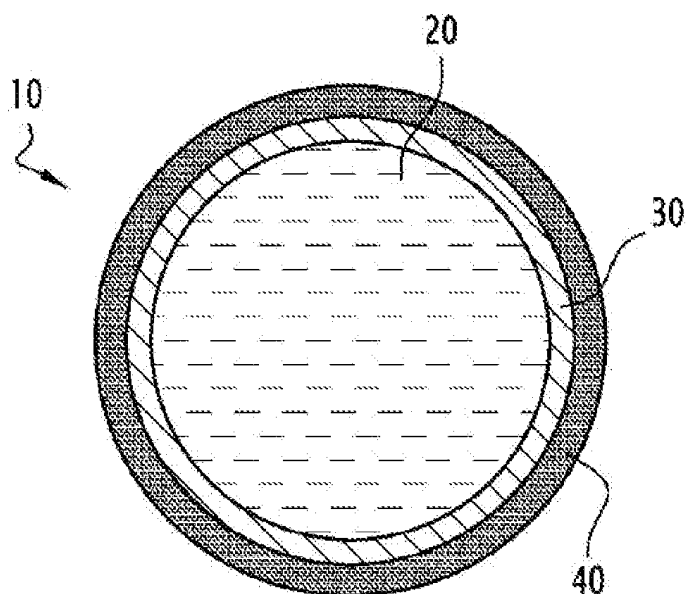


FIG.1

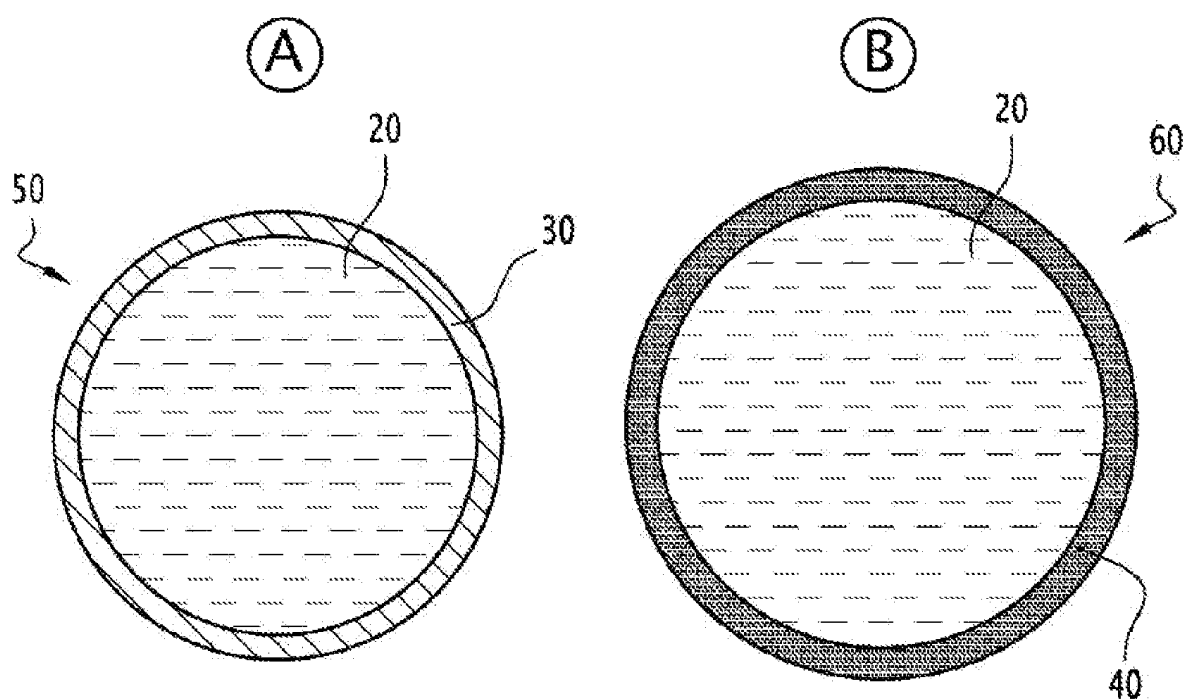


FIG.2

Publication numbers with kind code & date

US10710045

B2 2020-07-14

US10710045

EP2809440

B1 2018-04-04

EP2809440

CN104245114

B 2017-11-28

CN104245114B

US9604190

B2 2017-03-28

US9604190

FR2986165

B1 2015-07-24

FR2986165

US20150072146

A1 2015-03-12

US20150072146



US20150017676	A1	2015-01-15	US20150017676				
CN104245114	A	2014-12-24	CN104245114				
EP2809440	A2	2014-12-10	EP2809440				
BR112014018871	A1	2014-08-26	BR112014018871				
WO2013/113855	A3	2014-03-06	WO2013113855				
WO2013/113830	A1	2013-08-08	WO2013113830				
WO2013/113855	A2	2013-08-08	WO2013113855				
FR2986165	A1	2013-08-02	FR2986165				

Abstract

(EP2809440)

The present invention concerns a capsule containing at least one mammalian cell, said capsule comprising a liquid core, and at least one outer envelope totally encapsulating the liquid core at its periphery, said outer envelope comprising at least one gelled polyelectrolyte and/or a hardened biopolymer and being capable of retaining the liquid core when the capsule is plunged into a gas. The present invention also concerns the **method** for preparing such a capsule, a **method** for screening cosmetic active ingredients, and a culture **method** using such **capsules**.

Inventors

BIBETTE JEROME

ATRUX TALLAU NICOLAS

DOMEJEAN HUGO

FUNFAK ANNETTE

BREMOND NICOLAS

NASSOY PIERRE

ALLESSANDRI KEVIN

Latest standardized assignees - inventors removed

CAPSUM

Family 18/100 - FAMPAT - ©Questel

Title

(EP3479821)

Process for **manufacturing** pullulan hard **capsules** having improved film properties**Images**

Preparation Steps of Pullulan Aqueous Mixture

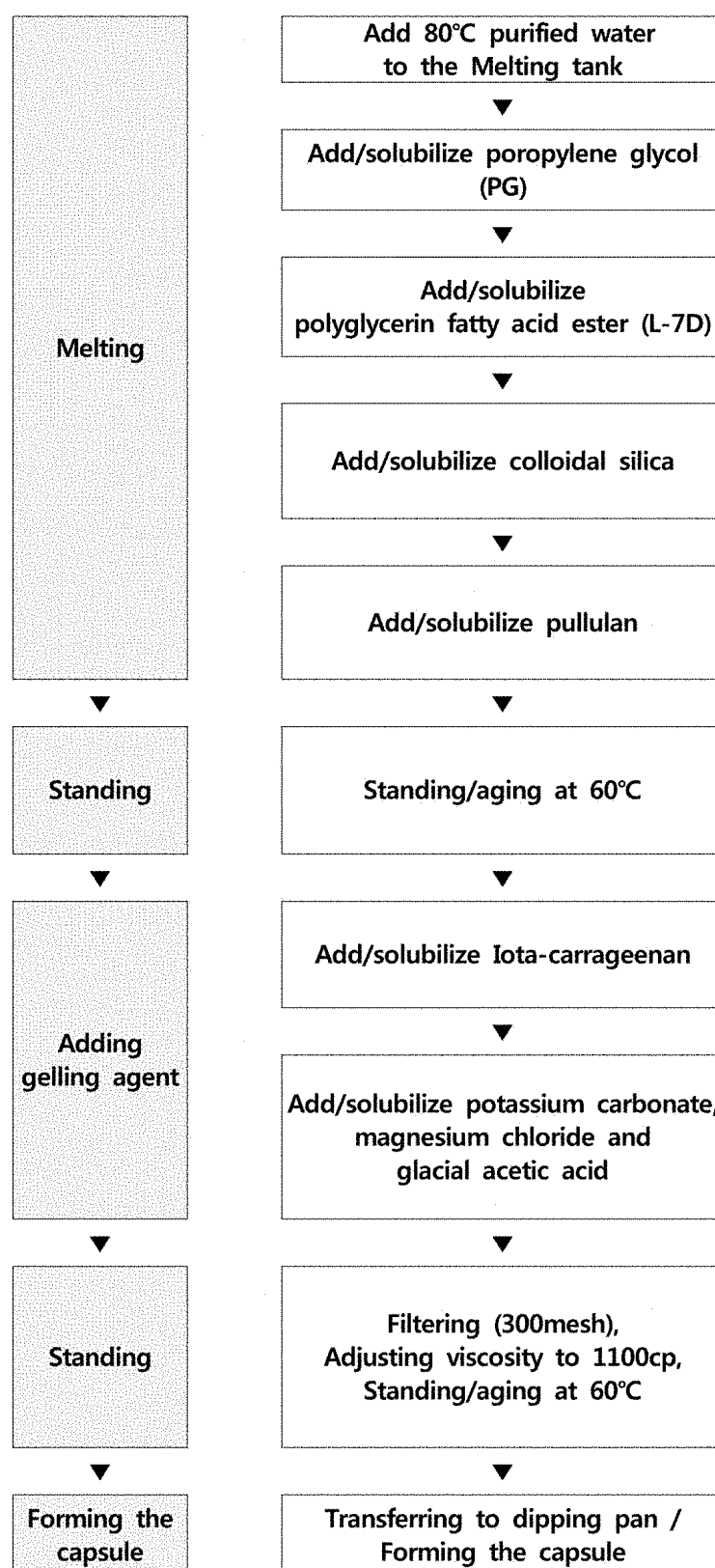


FIG. 1



KR10-1990814	B1	2019-06-19	KR101990814				
JP2019085386	A	2019-06-06	JP2019085386				
JP6511174	B1	2019-05-15	JP6511174				
KR10-2019-0051521	A	2019-05-15	KR20190051521				
CN109745297	A	2019-05-14	CN109745297				
EP3479821	A1	2019-05-08	EP3479821				
US10231935	B1	2019-03-19	US10231935				

Abstract

(EP3479821)

The present invention relates to a process for **manufacturing** pullulan hard **capsules** having improved film properties. More particularly, the present invention relates to a process for **manufacturing** pullulan hard **capsules** having improved film properties by solving the problems, such as, sticky among pullulan hard **capsules**, storage stability and/or brittleness.

Inventors

YANG JOO-HWAN

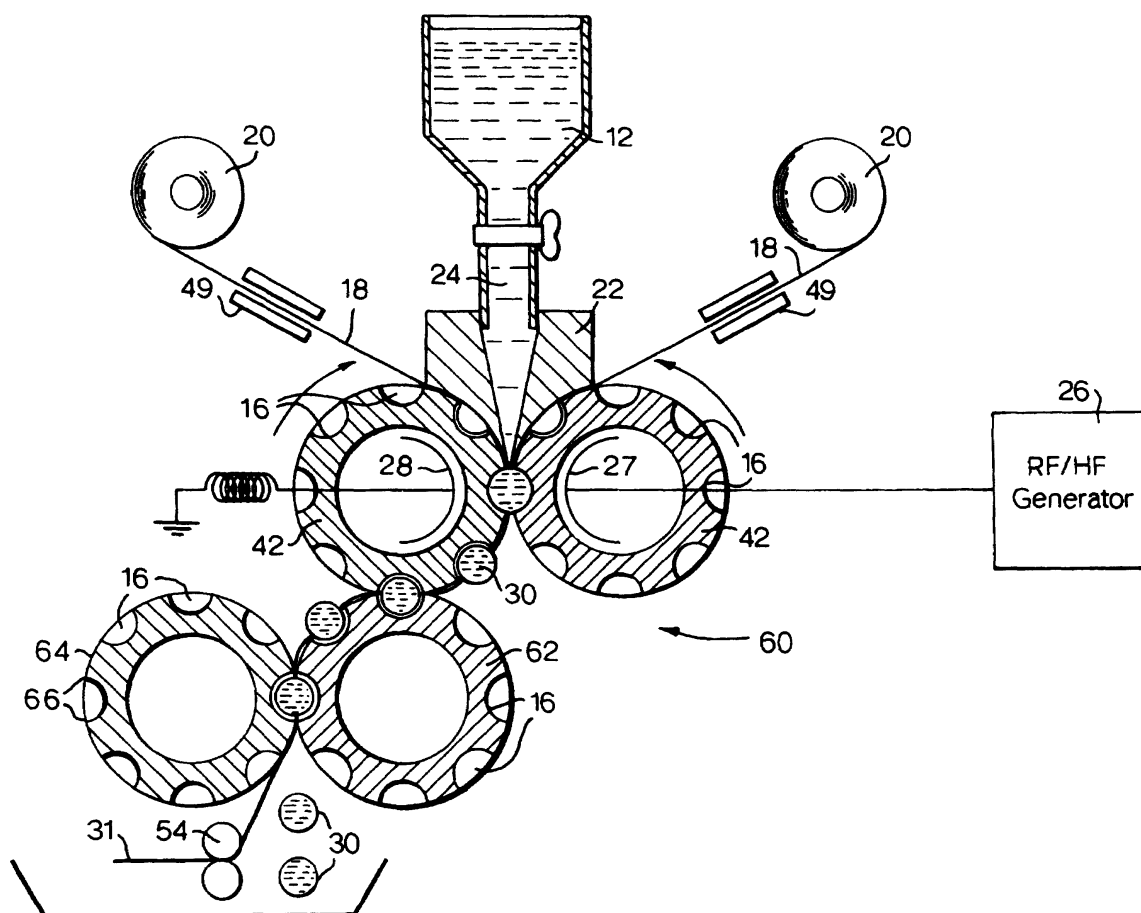
Latest standardized assignees - inventors removed

SUHEUNG

Family 19/100 - FAMPAT - ©Questel

Title

(EP1497175)

Method and apparatus for making **capsules****Images****Publication numbers with kind code & date**

US7490456	B2	2009-02-17	US7490456				
IL164213	B	2009-02-11	IL-164213				
MY134390	A	2007-12-31	MY-134390				

IN2281/CHENP/2004	A	2007-07-20	IN2004CN02281				
HK1074429	A1	2007-01-05	HK1074429				
ES2262982	T3	2006-12-01	ES2262982				
DE60305475	T2	2006-11-23	DE60305475				
PT1497175	E	2006-09-29	PT1497175				
ZA200407656	B	2006-07-26	ZA200407656				
DE60305475	D1	2006-06-29	DE60305475				
DK1497175	T3	2006-06-26	DK1497175T				
AT327156	T	2006-06-15	ATE327156				
EP1497175	B1	2006-05-24	EP1497175				
IL164213	A	2005-12-18	IL-164213				
NZ535693	A	2005-11-25	NZ-535693				
MXPA04010075	A	2005-08-15	MX2004PA010075				
JP2005522302	A	2005-07-28	JP2005522302				
CN1646369	A	2005-07-27	CN1646369				
US20050138899	A1	2005-06-30	US20050138899				
PL371421	A1	2005-06-13	PL2003371421				
RU2004133343	A	2005-05-10	RU2004133343				
KR20050013101	A	2005-02-02	KR20050013101				
BR0309124	A	2005-02-01	BR200309124				
EP1497175	A1	2005-01-19	EP1497175				
NO20044229	L	2004-10-06	NO20044229				
AU2003214471	A1	2003-11-03	AU2003214471				
CA2481100	A1	2003-10-30	CA2481100				
WO03/089302	A1	2003-10-30	WO200389302				
GB0208587	D0	2002-05-22	GB200208587				

Abstract

(EP1497175)

Capsules, for example for the delivery of pharmaceuticals, are produced from two films (18) of a water-soluble polymeric material, by deforming the films to form a multiplicity of recesses, and filling the recesses, using two adjacent rotary dies (14, 15; 42) with recesses (16) into which the films (18) are deformed. The dies (14, 15; 42) act as electrodes for welding the films together by dielectric welding to form filled **capsules** (30). The **capsules** (30) can be separated from the resulting web either by coating at least one of the dies (14) with an electrical insulator (21), or by transferring the web from the dies (14, 15; 42) to a second pair of dies which **cut** the **capsules** (30) free. The polymeric material may be **gelatin**, or a water-soluble cellulose derivative such as hydroxypropyl methyl cellulose, and may also contain a plasticiser.

Inventors

DRAISEY ALLAN

GRIMES RYAN

SMITH DAVID JOHN

TIDY GEORGE BERNARD

Latest standardized assignees - inventors removed

INGEL TECHNOLOGIES

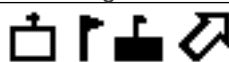
Family 20/100 - FAMPAT - ©Questel

Title

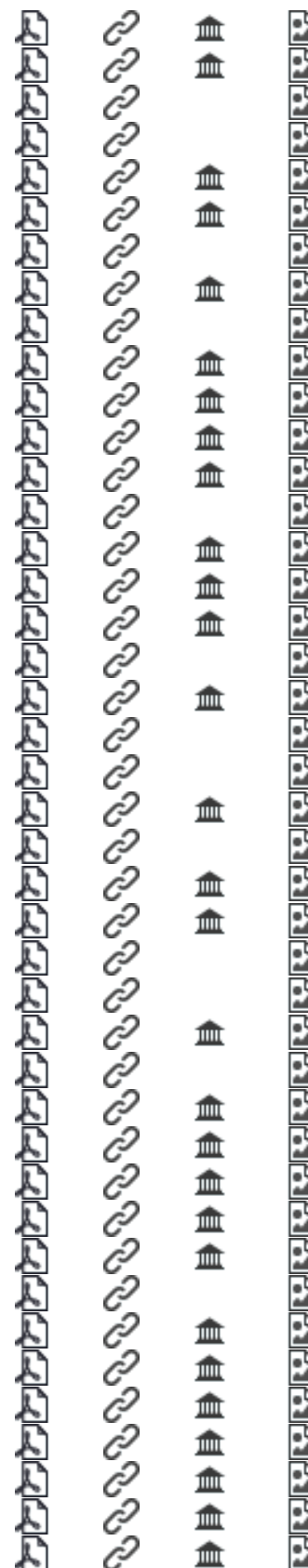
(EP1598062)

Film forming compositions comprising modified starches and iota-carrageenan and methods for **manufacturing** soft **capsules** using same

Images


Publication numbers with kind code & date

NO332023	B1	2012-05-29	NO-332023
JP4763590	B2	2011-06-17	JP4763590
CZ300190	B6	2009-03-11	CZ-300190
PL198332	B1	2008-06-30	PL-198332
DE60031825	T2	2007-09-13	DE60031825
ES2162614	T3	2007-07-01	ES2162614
HK1034445	A1	2007-06-08	HK1034445
JP2007126470	A	2007-05-24	JP2007126470
SI1105107	T1	2007-04-30	SI1105107T
JP3947003	B2	2007-04-20	JP3947003
DK1105107	T3	2007-02-12	DK1105107T
PT1105107	E	2007-01-31	PT1105107
DE60031825	D1	2006-12-28	DE60031825
AT345113	T	2006-12-15	ATE345113
EP1105107	B1	2006-11-15	EP1105107
CA2375652	C	2006-09-12	CA2375652
USRE39079	E1	2006-04-25	USRE39079
KR100541722	B1	2006-01-10	KR100541722
EP1598062	A1	2005-11-23	EP1598062
PL352797	A1	2003-09-08	PL2000352797
ZA200200109	B	2003-06-25	ZA200200109
US6582727	B2	2003-06-24	US6582727
CZ200237	A3	2003-02-12	CZ200200037
EP1105107	A4	2003-02-05	EP1105107
JP2003504326	A	2003-02-04	JP2003504326
KR20020059329	A	2002-07-12	KR20020059329
MXPA01013434	A	2002-07-02	MX2001PA013434
US20020081331	A1	2002-06-27	US20020081331
TR200200272	T2	2002-05-21	TR200200272
BR0011489	A	2002-03-05	BR200011489
NO20020055	A	2002-03-04	NO200200055
NO20020055	L	2002-03-04	NO20020055
US6340473	B1	2002-01-22	US6340473
DE1105107	T1	2002-01-17	DE1105107T
NO20020055	D0	2002-01-07	NO200200055
ES2162614	T1	2002-01-01	ES2162614
GR20010300049	T1	2001-09-28	GR20010300049
AU735699	B2	2001-07-12	AU-735699
EP1105107	A1	2001-06-13	EP1105107
AU6071500	A	2001-01-30	AU200060715
CA2375652	A1	2001-01-18	CA2375652
WO01/03677	A1	2001-01-18	WO200103677


Abstract

(EP1598062)

Disclosed herein are compositions comprising a modified starch and a carrageenan, especially iota-carrageenan, where the compositions are suitable for use in **manufacturing** soft **capsules**. In one embodiment a dried film composition consists essentially of from 42 to 84 % by weight gel formers comprising a mixture of iota-carrageenan and modified starch, water, a plasticiser and a buffer.

Inventors

TANNER KEITH EDWARD

GETZ JOHN J

BURNETT STEPHEN

YOUNGBLOOD ELIZABETH

DRAPER PETER ROBERT

Latest standardized assignees - inventors removed

R P SCHERER TECHNOLOGIES

CATALENT USA WOODSTOCK

CATALENT USA PACKAGING

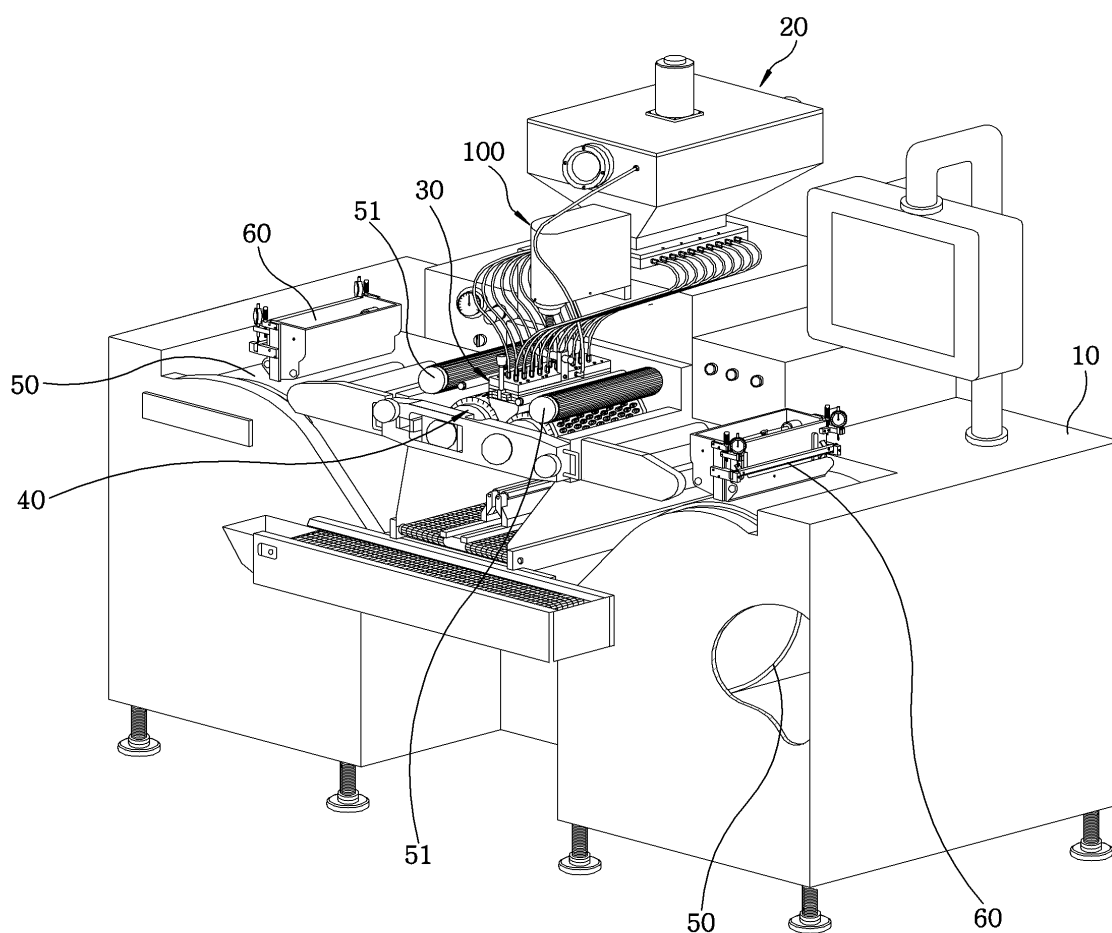
CATALENT PHARMA SOLUTIONS

CATALENT USA PAINTBALL

Family 21/100 - FAMPAT - ©Questel

Title

(KR101126778)

Device for **manufacturing** soft **gelatin capsules** capable of dropping a wedge to a **gelatin** sheet in power failure**Images****Publication numbers with kind code & date**

KR101126778

B1 2012-03-29

KR101126778

**Abstract**

(KR101126778)

PURPOSE: A device for **manufacturing** soft **gelatin capsules** is provided to prevent a **gelatin** sheet from being adhered to the surface of a wedge and a molding roller.

CONSTITUTION: A device for **manufacturing** soft **gelatin capsules** comprises a main body(10), a sheet drum(50), a

molding roller(40), a wedge(30) discharging liquid medicine, and an elevating device. The sheet drum is arranged in both sides of the main body and forms **gelatin** sheet. An actuating rod performs backward stroke in power failure. When the actuating rod performs backward stroke, the wedge is separated from the **gelatin** sheet. The elevating device is equipped with an actuator, a pipe, and a control unit.

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Inventors

RHIM, YOUNG-CHUL

Latest standardized assignees - inventors removed

BOCHANG

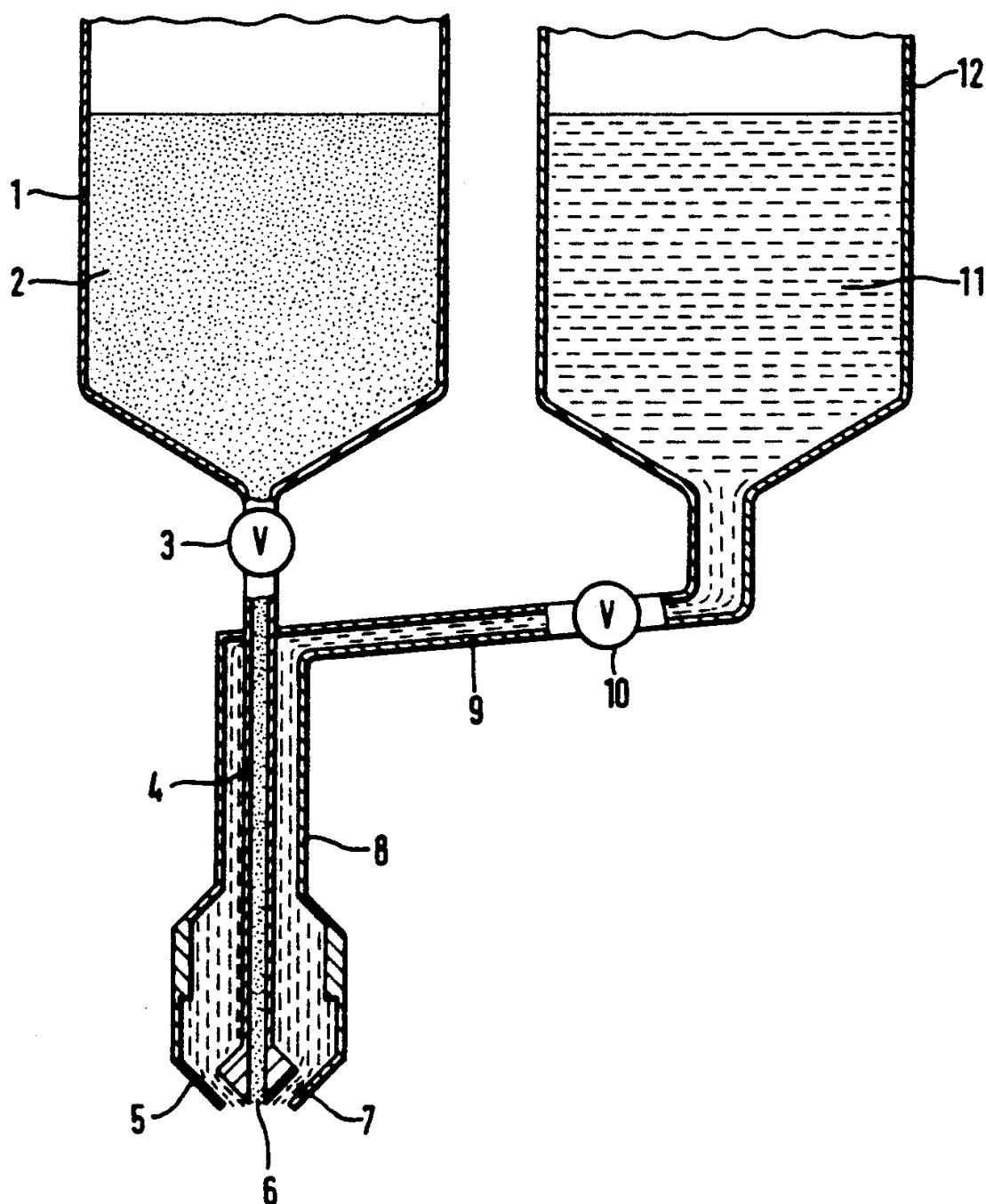
Family 22/100 - FAMPAT - ©Questel

Title

(US5254294)

Soft **gelatin capsules**

Images



Publication numbers with kind code & date

DE4201178	C2	1995-12-07	DE4201178
US5254294	A	1993-10-19	US5254294
DE4201178	A1	1993-07-22	DE4201178

**Abstract**

(US5254294)

In a dropping procedure for the formation of soft **gelatin capsules** in which, suitably, a pasty, fluid or sol/gel forming filling material is encapsulated with a soft **gelatin** mass, the solidification of the soft **gelatin** mass in a cooling bath of a chemically inert, exceedingly cold fluid which has no negative biological impact nor leaves harmful residue on the soft **gelatin** capsule. As cooling bath, there is most suitably utilized liquid nitrogen.

Inventors

WUNDERLICH JENS-CHRISTIAN

SCHICK URSULA

FREIDENREICH JURGEN

WERRY JURGEN

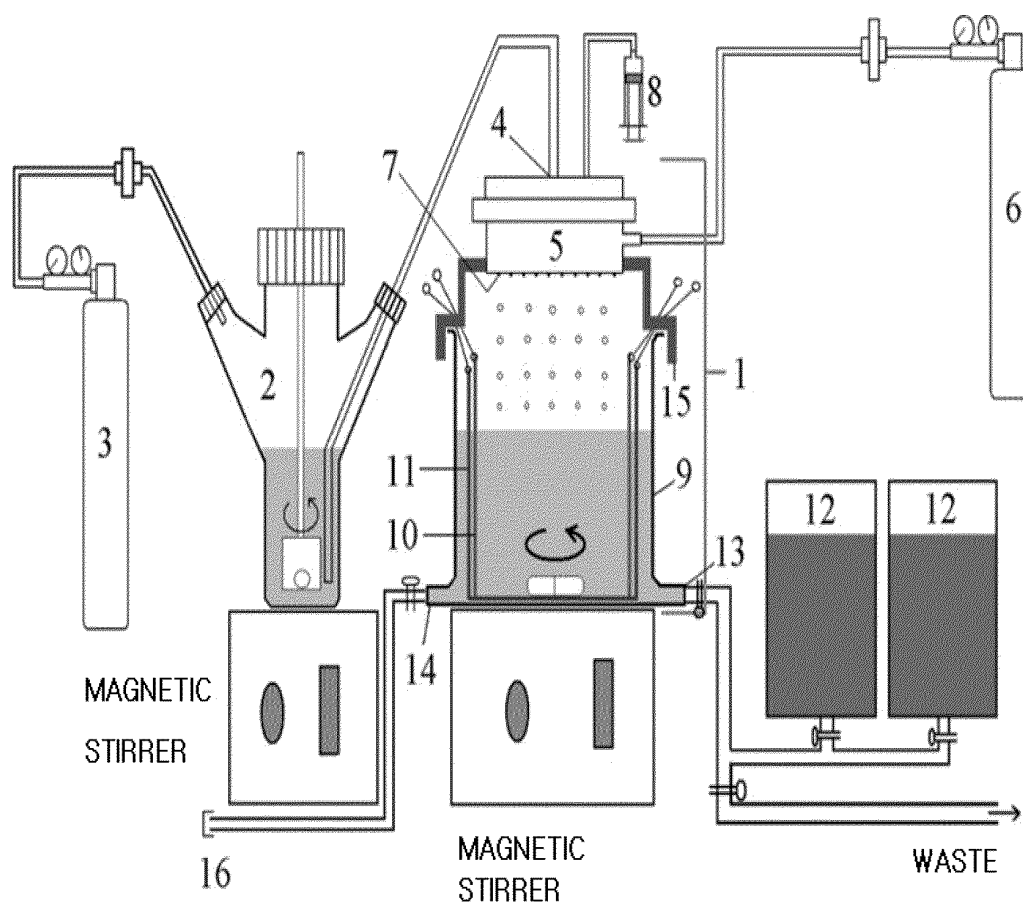
Latest standardized assignees - inventors removed

ALFATEC PHARMA

Family 23/100 - FAMPAT - ©Questel

Title

(WO200945052)

Apparatus and **method** of **manufacturing** aseptic **capsules****Images****Publication numbers with kind code & date**

DE112008002671	B4	2017-06-08	DE112008002671
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CA2701598	C	2014-11-18	CA2701598				
IN2805/DELNP/2010	A	2011-10-21	IN2010DN02805				
DE112008002671	T5	2011-02-17	DE112008002671				
US20100219545	A1	2010-09-02	US20100219545				
CN101815497	A	2010-08-25	CN101815497				
GB2466170	A	2010-06-16	GB2466170				
GB201006568	D0	2010-06-02	GB201006568				
KR100902781	B1	2009-06-12	KR100902781				
CA2701598	A1	2009-04-09	CA2701598				
KR20090035188	A	2009-04-09	KR20090035188				
WO2009/045052	A1	2009-04-09	WO200945052				

Abstract

(WO2009/045052)

Provided are an apparatus and a **method** of aseptically **manufacturing** cell-immobilizing **capsules**, the apparatus comprising a multi-nozzle assembly and a double mesh system for the washing and size-selection of the **capsules**, and thus, the production, washing, selection and recovery of the **capsules** can be easily conducted under an aseptic condition in an integrated fashion.

Inventors

PARK JUNG KEUG

KIM SUNG KOO

LEE SUK KOO

KIM YOUNG-JIN

LEE DOO-HOON

LEE JI-HYUN

YOON HEE-HOON

RYU JAE-NAM

KWON CHOON-HYUCK

NOH JEONG-KWON

PARK HEY-JUNG

Latest standardized assignees - inventors removed

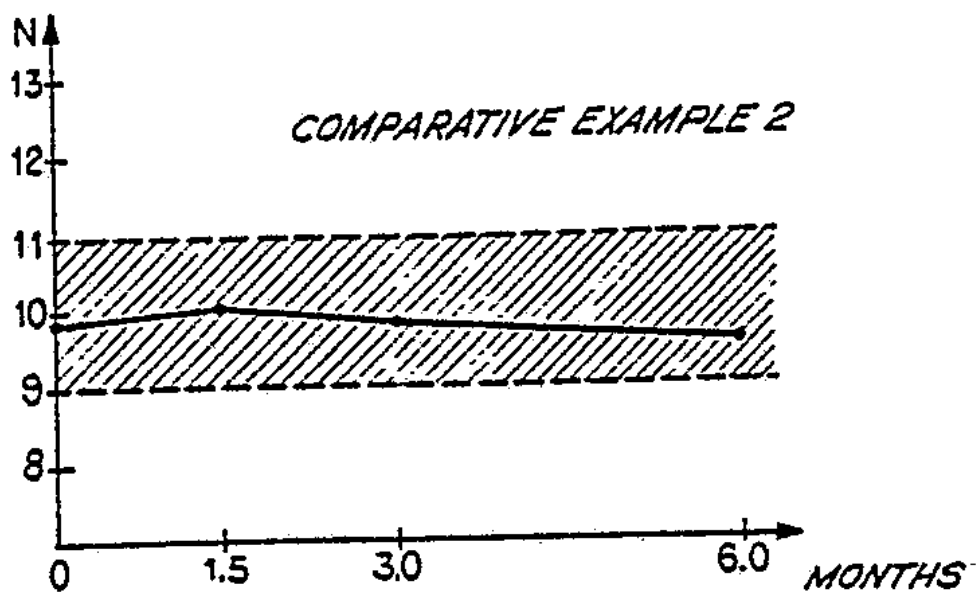
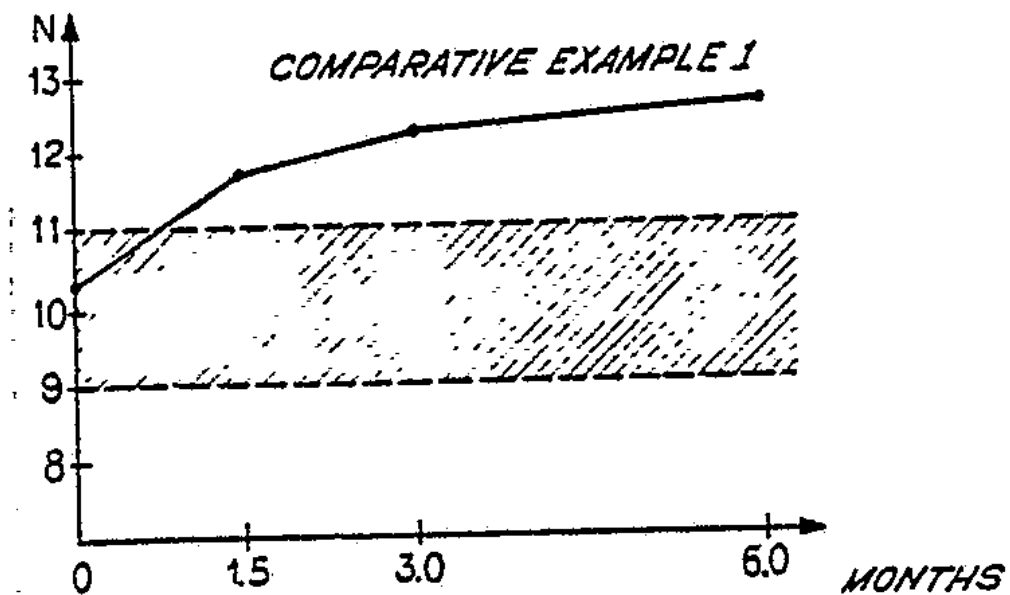
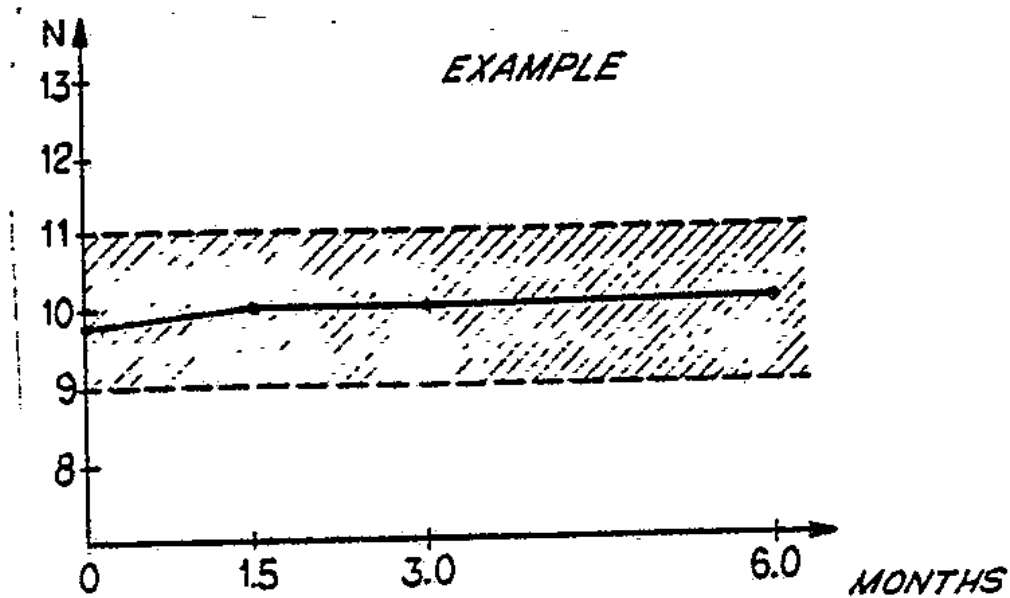
LIFECORD

Family 24/100 - FAMPAT - ©Questel

Title

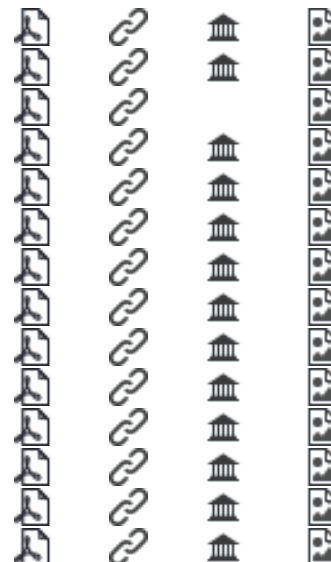
(EP-120248)

Soft **gelatin capsules** containing polyethylene glycol and process for preparing them**Images**



Publication numbers with kind code & date

JP6017303	B2	1994-03-09	JP94017303
DE3477879	D1	1989-06-01	DE3477879
AT42463	T	1989-05-15	ATE042463
EP0120248	B1	1989-04-26	EP-120248
US4744988	A	1988-05-17	US4744988
AU567448	B2	1987-11-19	AU-567448
CA1211712	A	1986-09-23	CA1211712
EP0120248	A3	1986-01-08	EP-120248
JPS60500623	A	1985-05-02	JP60500623
DE3307353	C2	1985-01-31	DE3307353
EP0120248	A2	1984-10-03	EP-120248
AU2690384	A	1984-09-28	AU8426903
WO84/03417	A1	1984-09-13	WO8403417
DE3307353	A1	1984-09-06	DE3307353

**Abstract**

(EP0120248)

A soft **gelatin** capsule comprising a shell of **gelatin** and a softener, and a filling consisting of a polyethylene glycol and a low polyhydric alcohol and at least one active substance, characterized in that (a) the dried shell of the capsule contains 4 to 40% by weight of sorbital or sorbitanes; (b) at least 50% by weight of the polyethylene glycol used in the filling for dissolving or suspending the active substance is a polyethylene glycol having a mean molecular weight of 600; and (c) the capsule filling comprises up to 20% by weight of glycerol and/or 1,2-propylene glycol.

(From US4744988 A)

Inventors

BROX, WERNER

Latest standardized assignees - inventors removed

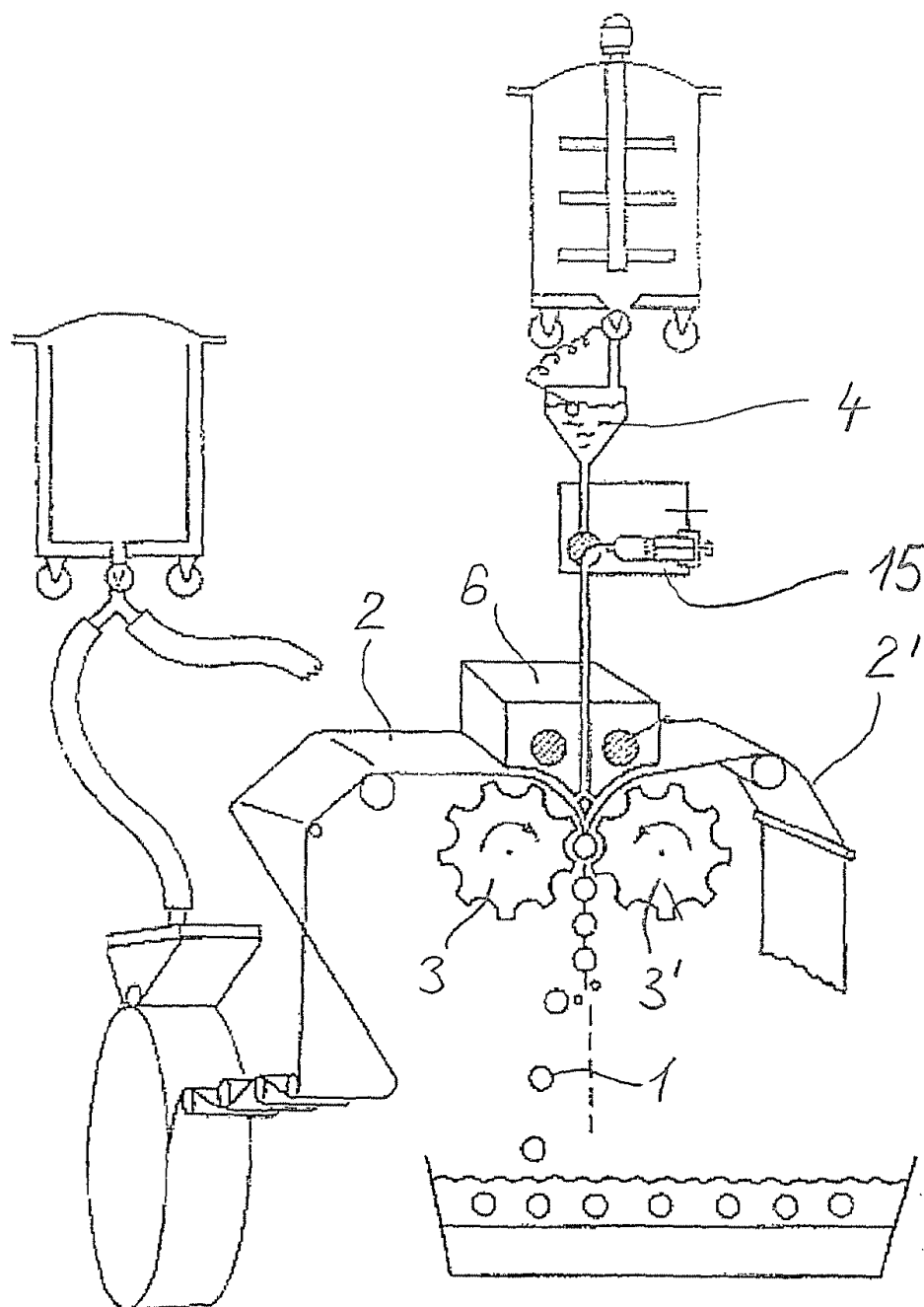
R P SCHERER

Family 25/100 - FAMPAT - ©Questel

Title

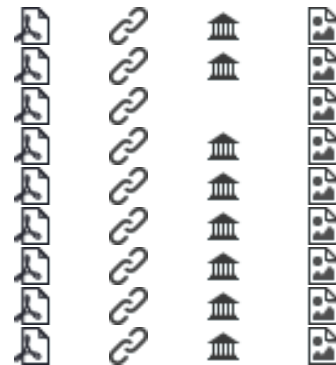
(EP2410970)

New device for **manufacturing** soft **capsules****Images**



Publication numbers with kind code & date

CA2760744	C	2017-05-30	CA2760744
US8727754	B2	2014-05-20	US8727754
PL2410970	T3	2013-07-31	PL2410970
ES2402108	T3	2013-04-29	ES2402108
EP2410970	B1	2013-02-13	EP2410970
US20120128765	A1	2012-05-24	US20120128765
EP2410970	A1	2012-02-01	EP2410970
CA2760744	A1	2010-09-30	CA2760744
WO2010/108948	A1	2010-09-30	WO2010108948



Abstract

(EP2410970)

The present invention relates to a rotary **die** device for producing soft **capsules**, comprising a capsule forming unit for forming a soft-capsule shell and a dosing unit for feeding a filling material into the capsule forming unit, characterized in that the dosing unit comprises a conveying apparatus of viscous melts and a portioner, wherein the portioner is connected at an end thereof to the conveying apparatus of viscous melts and is arranged in a filling wedge with a section in such a

way that filling material from the portioner reaches the location of the capsule filling directly or by means of one or more channels having a length of at most 30 mm. Using said device, high-viscosity filling materials can be filled and thus novel soft **capsules** can be made accessible.

Inventors

BROCKER ERICH

PETER ALOIS

SYDOW GEORG

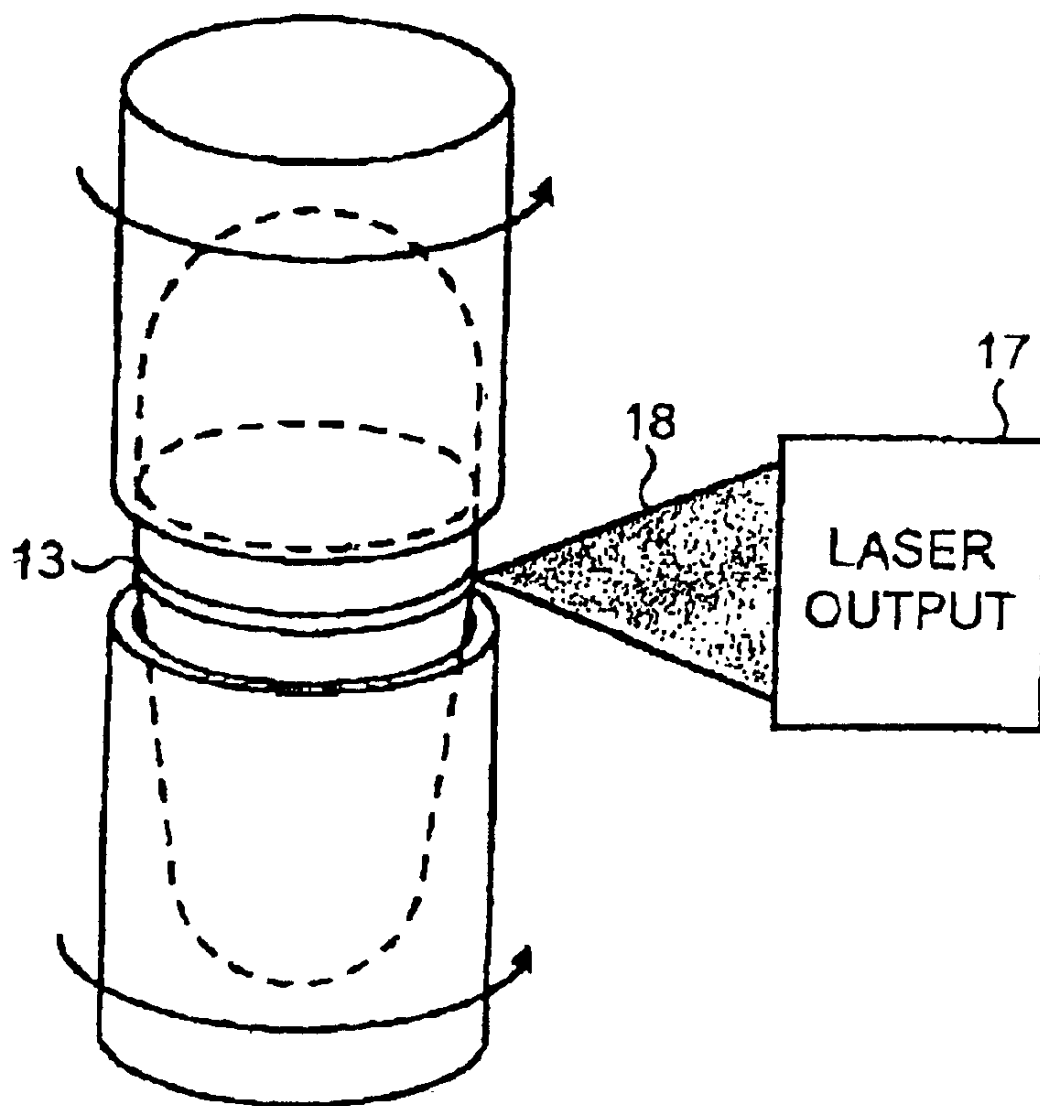
Latest standardized assignees - inventors removed

SWISS CAPS RECHTE & LIZENZEN

Family 26/100 - FAMPAT - ©Questel

Title

(EP1414639)

Method for bonding medical inhalation **capsules** in a material fit, and bonding device**Images****Publication numbers with kind code & date**

CY1107673	T1	2013-04-18	CY1107673
CA2455324	C	2010-09-07	CA2455324
ES2333619	T3	2010-02-24	ES2333619



DE50213858	D1	2009-10-29	DE50213858				
AT442950	T	2009-10-15	ATE442950				
EP1792705	B1	2009-09-16	EP1792705				
JP4334341	B2	2009-07-03	JP4334341				
ES2284904	T3	2007-11-16	ES2284904				
SI1414639	T1	2007-10-31	SI1414639T				
DK1414639	T3	2007-07-30	DK1414639T				
PT1414639	E	2007-06-15	PT1414639				
EP1792705	A1	2007-06-06	EP1792705				
DE50209984	D1	2007-05-31	DE50209984				
AT359906	T	2007-05-15	ATE359906				
EP1414639	B1	2007-04-18	EP1414639				
US6949154	B2	2005-09-27	US6949154				
JP2004535961	A	2004-12-02	JP2004535961				
MXPA04000845	A	2004-05-14	MX2004PA000845				
EP1414639	A1	2004-05-06	EP1414639				
AR034906	A1	2004-03-24	AR--34906				
UY27398	A1	2003-02-28	UY--27398				
CA2455324	A1	2003-02-13	CA2455324				
DE10137054	A1	2003-02-13	DE10137054				
US20030029558	A1	2003-02-13	US20030029558				
WO03/011574	A1	2003-02-13	WO200311574				

Abstract

(EP1414639)

The invention relates to a novel **method** for bonding plastic **capsules** (2, 3) for inhalers, to the bonded **capsules** obtained thereby, and to a device for carrying out said **method**. The **capsules** obtained according to the inventive **method** are disposable **capsules** and preferably contain an individual dose of a pharmaceutical formulation which can be administered by inhalation, said formulation being in the form of powder or liquid. The shape and function of said **capsules** enables them to be used in powder inhalers or liquid sprays for the production of aerosols. Aerosols thus produced can be inhaled, for example, so that a pharmaceutical formulation can be administered via the pulmonary route.

Inventors

HOCHRAINER DIETER

WACHTEL HERBERT

Latest standardized assignees - inventors removed

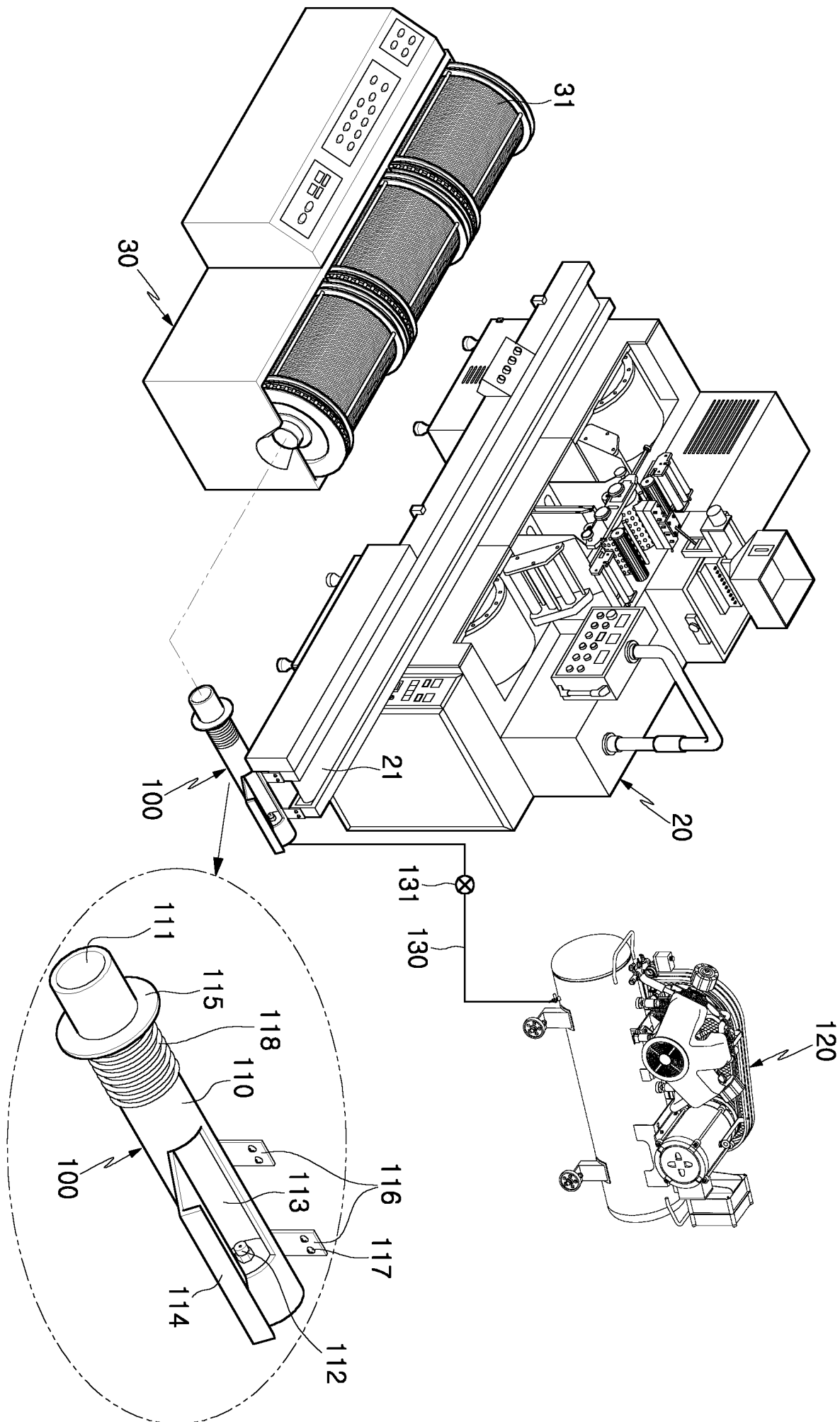
BOEHRINGER INGELHEIM PHARMACEUTICALS

Family 27/100 - FAMPAT - ©Questel

Title

(KR200373420U)

Apparatus transfer of system **manufacturing** soft **gelatin** capsule**Images**



KR200373420

Y1

2005-01-15

KR200373420U

**Abstract**

(KR200373420)

The present invention comprises a soft **gelatin capsules** are formed by a molding machine and a soft **gelatin** capsule soft **gelatin** capsule smoothly stably supplied to the dryer by transferring **capsules** for making operations can be configured to improve the efficiency of a system for **manufacturing** soft **gelatin** capsule of the capsule transport device.

In accordance with one aspect of the present invention relates, in a soft **gelatin** capsule is molded into the capsule **manufacturing** soft **gelatin** capsule by the transfer device to transfer to the dryer to dry in a conventional soft **gelatin** capsule **manufacturing** system; the top end portions of the transport device includes a soft **gelatin** capsule dryer drum so as to be partially inserted into the soft **gelatin capsules** in a molding machine frame releasably supporting the transfer belt is installed, the hollow portion is formed inside the guide and the front opening, and the pressure of the compressed air is injected at the rear end of the nozzle is coupled, wherein the transfer belt frame to agree with the guiding hollow portion is circumferentially so that the capsule is inserted is formed between the cylinder and the transfer port; of the transfer cylinder and the pressure of the compressed air to be supplied to the nozzle for generating an air compressor; compressed air generated in the air compressor cylinder pressure of the air supply pipe leading to a nozzle that is composed of a soft **gelatin** capsule and capsule transport device **manufacturing** system is provided.

Inventors

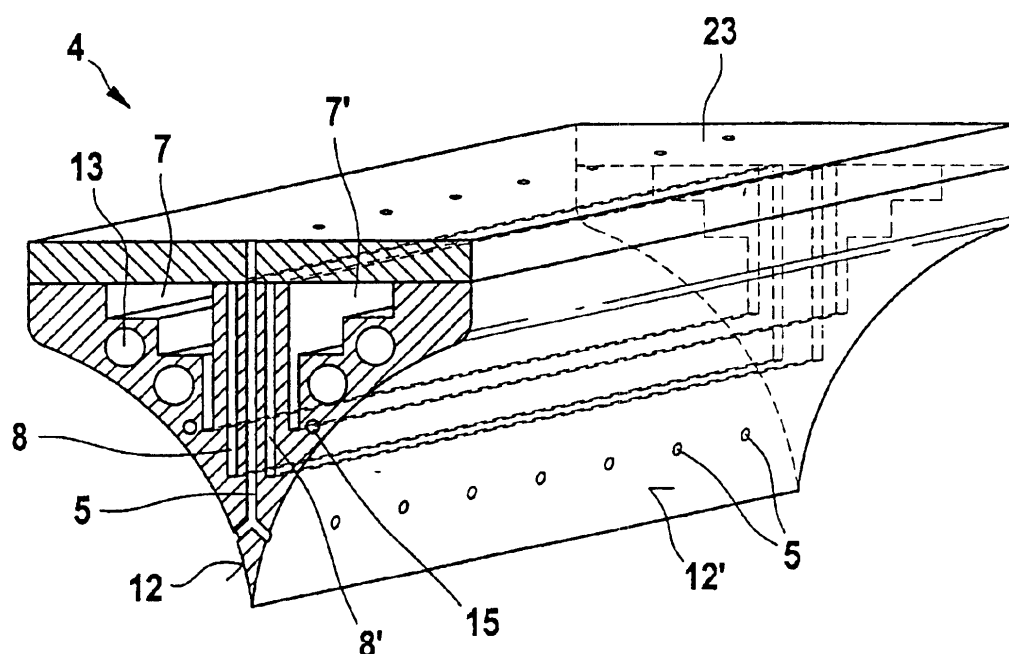
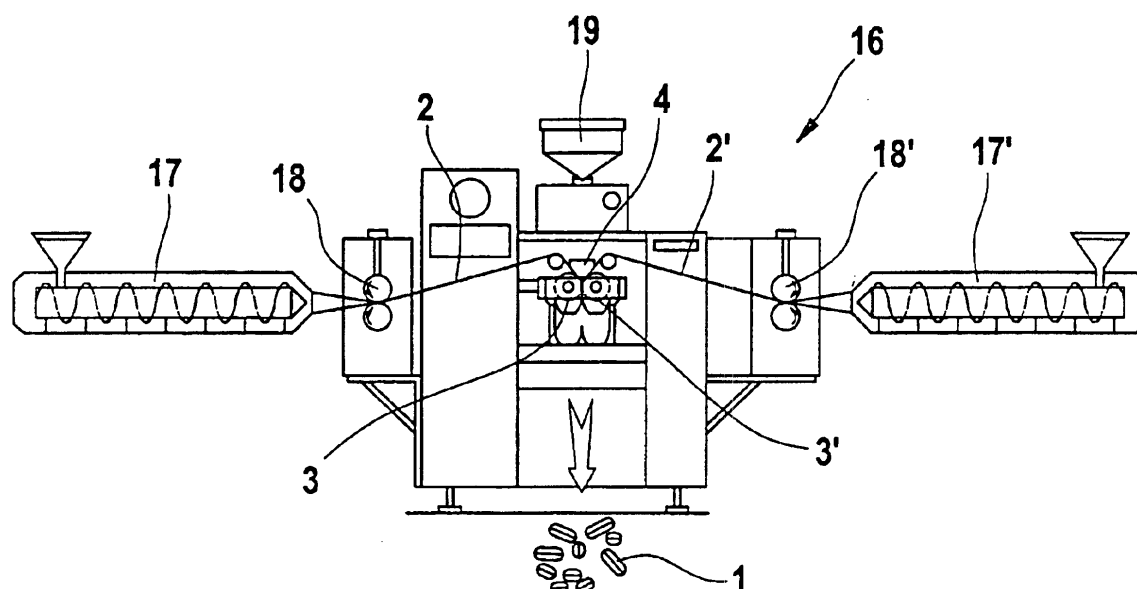
KIM, Hwa-Suk

Family 28/100 - FAMPAT - ©Questel

Title

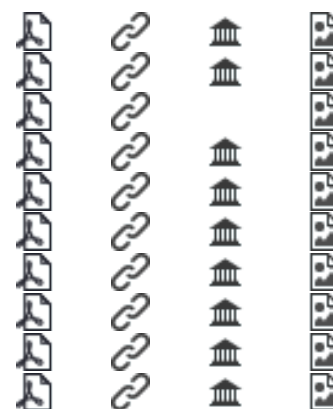
(EP1216680)

Rotary **die** process and filling wedge for **manufacturing capsules**, in particular soft **capsules****Images**



Publication numbers with kind code & date

ES2257998	T3	2006-08-16	ES2257998
DE50012405	D1	2006-05-11	DE50012405
AT320237	T	2006-04-15	ATE320237
EP1216680	B1	2006-03-15	EP1216680
US6935090	B2	2005-08-30	US6935090
JP2004520104	A	2004-07-08	JP2004520104
US20040060258	A1	2004-04-01	US20040060258
AU1810402	A	2002-07-01	AU200218104
WO02/49572	A1	2002-06-27	WO200249572
EP1216680	A1	2002-06-26	EP1216680



Abstract

(EP1216680)

The fill wedge (4), which has preferably concave wedge surfaces (12, 12'), is provided with supply channels (5) and preferably a heating device (13) for heating the wedge surfaces. To prevent the thermally sensitive fill product from being heated as it is guided through the fill wedge, an agent that reduces the transfer of heat is provided between the supply channels and the wedge surfaces, preferably conveyed by a respective coolant channel (8, 8'). A thermal separation

between the supply channels and the wedge surfaces is thus achieved in the fill wedge, enabling the system to work with high operating temperatures for the capsule shell material. High temperatures of this type are required, for example, for capsule shells consisting of thermoplastic starch.

Inventors

STOLZ LEO

Latest standardized assignees - inventors removed

SWISS CAPS RECHTE & LIZENZEN

Family 29/100 - FAMPAT - ©Questel

Title

(US5916591)

Soft **gelatin capsules**

Publication numbers with kind code & date

US5916591	A	1999-06-29	US5916591
FR2730933	B1	1999-02-05	FR2730933
GB2298137	B	1999-01-06	GB2298137
JP08245373	A	1996-09-24	JP08245373
FR2730933	A1	1996-08-30	FR2730933
DE19603402	A1	1996-08-29	DE19603402
GB2298137	A	1996-08-28	GB2298137
GB9603571	D0	1996-04-17	GB9603571



Abstract

(US5916591)

Soft **gelatin capsules** consisting of capsule shell and capsule filling, where the capsule filling comprises one or more water-insoluble active ingredients) in the form of a powdered product.

Inventors

BIERDEL-WILLKOMMEN ELVIRA

SAMBALE CLEMENS

HAEHNLEIN WOLFGANG

Latest standardized assignees - inventors removed

BASF

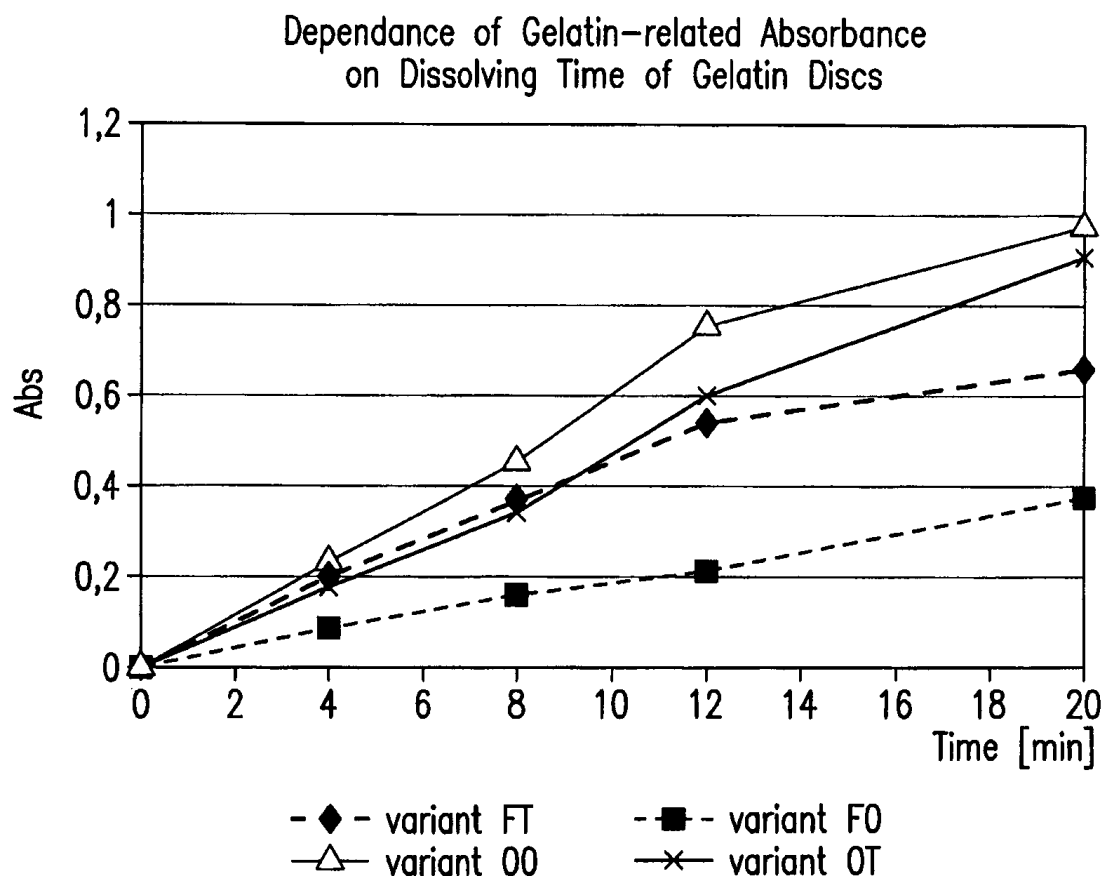
Family 30/100 - FAMPAT - ©Questel

Title

(EP1549299)

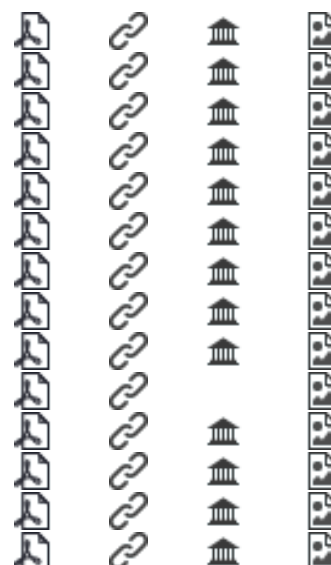
Reduction of **gelatin** cross-linking

Images



Publication numbers with kind code & date

ES2524000	T3	2014-12-03	ES2524000
US8895059	B2	2014-11-25	US8895059
EP1549299	B1	2014-08-20	EP1549299
US20110097398	A1	2011-04-28	US20110097398
EP1549299	A4	2010-12-15	EP1549299
AU2003240536	B2	2007-11-15	AU2003240536
NZ537022	A	2006-10-27	NZ-537022
IL165534	A	2006-01-15	IL-165534
EP1549299	A2	2005-07-06	EP1549299
KR20050024314	A	2005-03-10	KR20050024314
NO20045308	L	2005-01-03	NO20045308
WO03/103582	A3	2004-07-29	WO2003103582
AU2003240536	A1	2003-12-22	AU2003240536
WO03/103582	A2	2003-12-18	WO2003103582



Abstract

(EP1549299)

The invention relates to compositions and methods for reducing cross-linking in the **gelatin** shell of **gelatin capsules** by incorporation of free amino acid into the capsule shell and by inclusion of an ester of carboxylic acid either into the capsule filling, and/or into the capsule shell and/or into the lubrication agent, or in combinations thereof. Described are soft **gelatin capsules** characterized by improved stability as compared with **gelatin capsules** that do not contain amino acid in the shell and carboxylic acid ester in the filling, shell or in the lubrication agent, or in combinations thereof.

Inventors

VRANA ALES

Latest standardized assignees - inventors removed

TEVA CZECH INDUSTRIES

Family 31/100 - FAMPAT - ©Questel

Title

(EP-633733)

Heat-stable and fracturable spray-dried free-flowing flavor oil **capsules**, **method** of making and using in foods**Publication numbers with kind code & date**

DE69300590	T3	2001-10-11	DE69300590			
SK281384	B6	2001-03-12	SK-281384			
RO116337	B1	2001-01-30	RO-116337			
JP3054443	B2	2000-06-19	JP3054443			
DK0633733	T4	2000-04-17	DK-633733T			
ES2080616	T5	2000-04-01	ES2080616			
CZ286118	B6	2000-01-12	CZ-286118			
EP0633733	B2	1999-12-29	EP-633733			
KR100220501	B1	1999-09-15	KR100220501			
CA2131302	C	1999-08-31	CA2131302			
BR9306169	A	1998-01-13	BR9306169			
RU2089076	C1	1997-09-10	RU2089076			
RU94044444	A	1996-11-10	RU94044444			
RU94044444	A1	1996-11-10	RU94044444			
AU669167	B2	1996-05-30	AU-669167			
NZ251827	A	1996-05-28	NZ-251827			
DE69300590	T2	1996-05-23	DE69300590			
ES2080616	T3	1996-02-01	ES2080616			
DK0633733	T3	1995-12-04	DK-633733T			
DE69300590	D1	1995-11-09	DE69300590			
AT128607	T	1995-10-15	ATE128607			
EP0633733	B1	1995-10-04	EP-633733			
JPH07508164	A	1995-09-14	JP07508164			
CZ226794	A3	1995-06-14	CZ9402267			
SK116794	A3	1995-06-07	SK9401167			
KR19957000689	A	1995-02-20	KR19957000689			
KR950700689	A	1995-02-20	KR19950700689			
EP0633733	A1	1995-01-18	EP-633733			
FI944518	A	1994-09-29	FI9404518			
FI944518	A0	1994-09-29	FI9404518			
WO93/19622	A3	1993-11-25	WO9319622			
AU3971493	A	1993-11-08	AU9339714			
CA2131302	A1	1993-10-14	CA2131302			
WO93/19622	A2	1993-10-14	WO9319622			

Abstract

(EP0633733)

Heat-stable and fracturable spray-dried free-flowing flavor oil **capsules** are made by coacervation and used in a wide variety of flavoring foods such as deep fat frying, baking, microwaving, and extrusion applications.**Inventors**

PEARL THEODORE T

SOPER JON C

WAMPLER DANIEL J

Latest standardized assignees - inventors removed

GIVAUDAN ROURE

Family 33/100 - FAMPAT - ©Questel

Title

(CN102702983)

Method for restoring netted glue into **gelatin** by using leftovers in production of soft **capsules****Publication numbers with kind code & date**[CN102702983](#)

A

2012-10-03

CN102702983

**Abstract**

(CN102702983)

The patent refers to the field of 'preparation of glue or gelatine'. The invention provides a **method** for restoring netted glue into **gelatin** by using leftovers in production of soft **capsules**. The **method** for restoring the netted glue into the **gelatin** by using the leftovers in the production of the soft **capsules** comprises the following steps: (1) soaking and cleaning netted glue with deionized water, wherein the content of the netted glue accounts for 20 to 25% of the total volume; (2) making cleaned netted glue enter a reactor, and melting the netted glue at a temperature of 50 to 80 DEG C; (3) adding 5 to 20% of an active adsorbent, and reacting; (4) adding edible alcohol with the weight percentage of 3%, and adjusting the pH to 5.5 to 7.5; (5) filtering the solution by a net bag, and obtaining a glue solution; and (6) concentrating the glue solution with a vacuum concentrator, performing infrared sterilization, drying and crushing to obtain a finished product. The **method** for restoring the netted glue into the **gelatin** by using the leftovers in the production of the soft **capsules** is simple in process, wide in material source and low in cost and can help a soft capsule producing enterprise to treat wastes so as to prevent the wastes from polluting the environment; and the prepared product accords with national edible and pharmaceutical grade standards.

Inventors

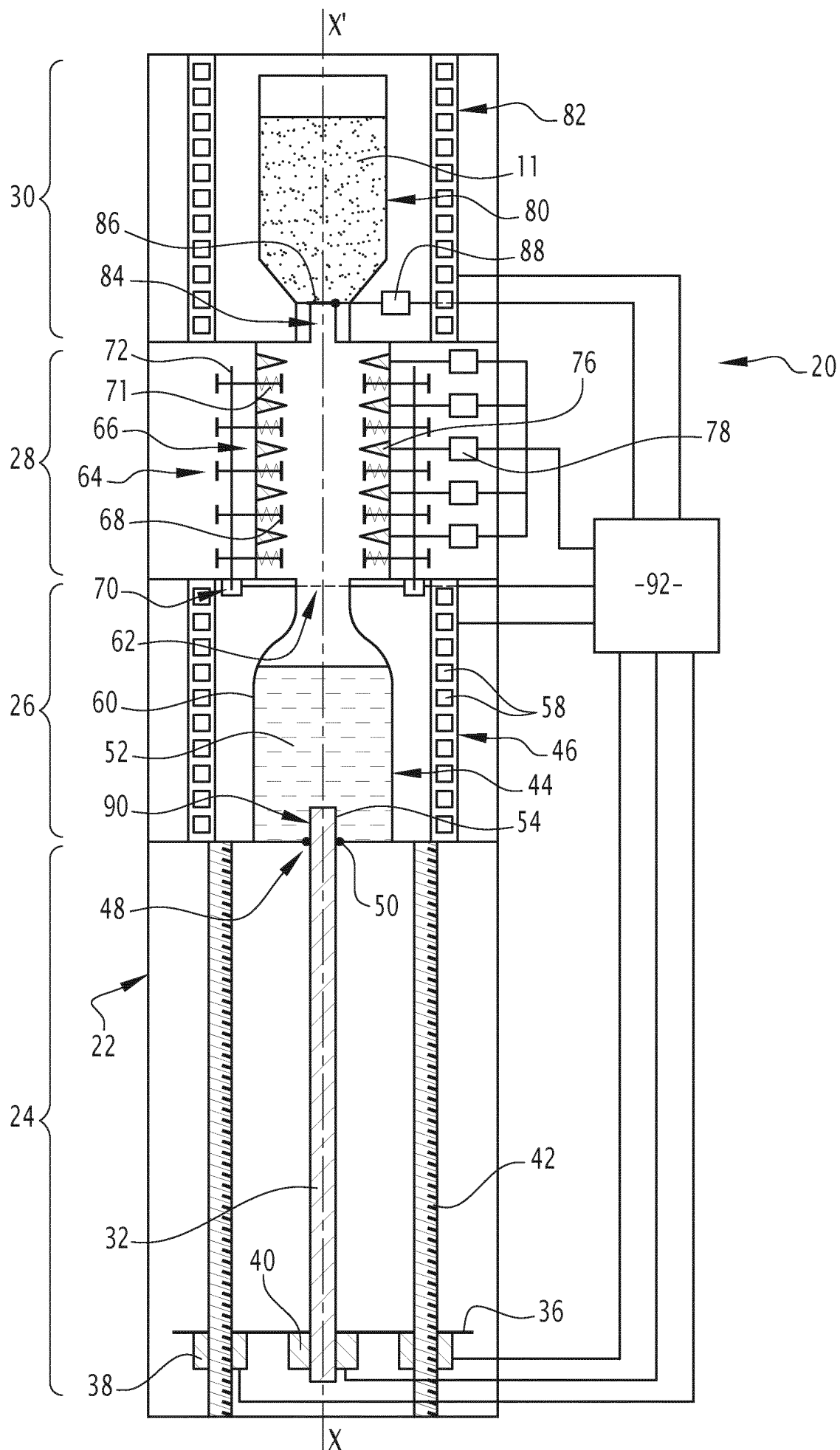
ZHENG ZHANGJI

Family 34/100 - FAMPAT - ©Questel

Title

(WO202053374)

Process for **manufacturing capsules** and associated system**Images**



[FR3085841](#)

A1

2020-03-20

FR3085841

[WO2020/053374](#)

A1

2020-03-19

WO202053374

Abstract

(WO2020/053374)

Process for **manufacturing** a plurality of **capsules** containing a cosmetic product, the process including the following steps: - displacement of a support (32) through a first reservoir (44) containing a viscous material (52) designed to form the side wall, and coating of the support with a layer (56) of the viscous material; - displacement of the support through a shaping module (28) and solidification of the layer of material; - withdrawal of the support outside the shaping module, freeing an internal slot (74) defined by the layer of solidified material; - entry of at least one cosmetic product (11) from a second reservoir (80) into the internal slot; and - **cut** out the layer using a cutting device (68) to form the side walls of at least one capsule, and sealing of the internal spaces of **capsules** containing the cosmetic product by seals.

Inventors

DEHAUDT ERIC

Latest standardized assignees - inventors removed

L'OREAL

Family 35/100 - FAMPAT - ©Questel

Title

(EP1752140)

Method for banding hard **capsules** using hydroxypropylmethyl cellulose (HPMC) as a base**Images**

Fig. 1



Fig. 2



IN210755	B	2007-12-14	IN-210755				
KR100704098	B1	2007-04-05	KR100704098				
IN0749/CHENP/2001	A	2007-03-02	IN2001CN00749				
DE69905393	T2	2003-10-23	DE69905393				
CN1124214	C	2003-10-15	CN1124214C				
DE69905393	D1	2003-03-20	DE69905393				
EP1135294	B1	2003-02-12	EP1135294				
JP2002531331	A	2002-09-24	JP2002531331				
US6425422	B1	2002-07-30	US6425422				
CN1324314	A	2001-11-28	CN1324314				
EP1135294	A1	2001-09-26	EP1135294				
KR20010075081	A	2001-08-09	KR20010075081				
IT1304779	B1	2001-03-29	IT1304779				
TW422801	B	2001-02-21	TW-422801				
CA2345964	A1	2000-06-08	CA2345964				
WO00/32474	A1	2000-06-08	WO200032474				
ITBO980681	A1	2000-06-05	IT98BO0681				
ITBO980681	D0	1998-12-03	IT98BO0681				

Abstract

(EP1135294)

The carousel (14) that carries the holder (4) with the product to be dosed, with the lower disc (1) fitted with peripheral sets of dosing holes (2) into which the static stations of plungers (7) insert and press in successive stages the doses of product, carries on board itself, on the periphery, the fixed bodies (11) and the radially moveable bodies (11') with seatings for supporting the tops (C1) and bottoms (C2) of the hard **gelatin capsules**. The lower bodies support extensions (111) that are oriented towards the centre of the carousel and that are used to close the lower ends of the said sets of dosing holes (2) in the successive stages forming the doses of product. Opposing members (15) are provided to support the moveable assemblies (111, 11') during the stages of formation of the product doses. With only one dosing disc (1) it is possible to form doses of product of different densities and masses and different heights by varying the heights of the sets of plungers, and ensuring that one station of plungers completes the filling of the dosing holes without pressing the corresponding quantity of product (Q4) as happened with the previous quantities (Q1-Q3). The chamber defined by the sweeper wall (10) and containing no product is provided with a plunger station (K5) that completes the pressing of this final quantity of product (Q4) and, if required, of the complete carrots of product isolated within the dosing holes, before a subsequent plunger station (K6) discharges these carrots of product into the capsule bottoms. The doses of product can be checked for mass by force transducers (T, T') fitted to at least the plungers of the final pressing of the doses and connected to the processor that controls the dosing machine.

Inventors

TREBBI ROBERTO

Latest standardized assignees - inventors removed

IMA INDUSTRIA MACCHINE AUTOMATICHE

Family 37/100 - FAMPAT - ©Questel

Title

(EP1654282)

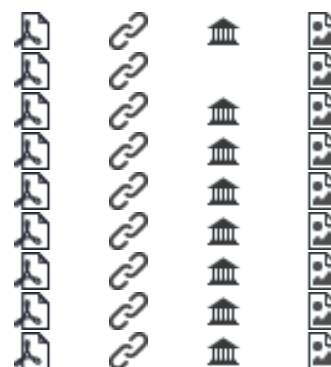
Gelatin capsules

Images

Gly Leu Pro Gly Ala Lys Gly Leu Thr Gly Ser Pro Gly Ser Pro Gly
 1 5 10 15
 Pro Asp Gly Lys Thr Gly Pro Pro Gly Pro Ala Gly Gln Asp Gly Arg
 20 25 30
 Pro Gly Pro Pro Gly Pro Pro Gly Ala Arg Gly Gln Ala Gly Val Met
 35 40 45
 Gly Phe Pro Gly Pro Lys Gly Ala Ala Gly Glu Pro Gly Lys Ala Gly
 50 55 60
 Glu Arg Gly Val Pro Gly Pro Pro Gly Ala Val Gly Pro Ala Gly Lys
 65 70 75 80
 Asp Gly Glu Ala Gly Ala Gln Gly Pro Pro Gly Pro Ala Gly Pro Ala
 85 90 95
 Gly Glu Arg Gly Glu Gln Gly Pro Ala Gly Ser Pro Gly Phe Gln Gly
 100 105 110
 Leu Pro Gly Pro Ala Gly Pro Pro Gly Glu Ala Gly Lys Pro Gly Glu
 115 120 125
 Gln Gly Val Pro Gly Asp Leu Gly Ala Pro Gly Pro Ser Gly Ala Arg
 130 135 140
 Gly Glu Arg Gly Phe Pro Gly Glu Arg Gly Val Gln Gly Pro Pro Gly
 145 150 155 160
 Pro Ala Gly Pro Arg Gly Ala Asn Gly Ala Pro Gly Asn Asp Gly Ala
 165 170 175

Publication numbers with kind code & date

DE602004030346	D1	2011-01-13	DE602004030346
AT490273	T	2010-12-15	ATE490273
EP1654282	B1	2010-12-01	EP1654282
JP2007523047	A	2007-08-16	JP2007523047
EP1654282	A2	2006-05-10	EP1654282
WO2005/012356	A3	2005-08-11	WO200512356
US20050058703	A1	2005-03-17	US20050058703
AU2004262007	A1	2005-02-10	AU2004262007
WO2005/012356	A2	2005-02-10	WO200512356



Abstract

(EP1654282)

The invention relates to recombinant gelatins, and to recombinant gelatins useful in **gelatin** capsule manufacture, and to compositions, **gelatin capsules**, and **gelatin** films comprising these, as well as methods of production.

Inventors

CHANG ROBERT C
 OLSEN DAVID R
 POLAREK JAMES W
 WILLIAMS KIM E

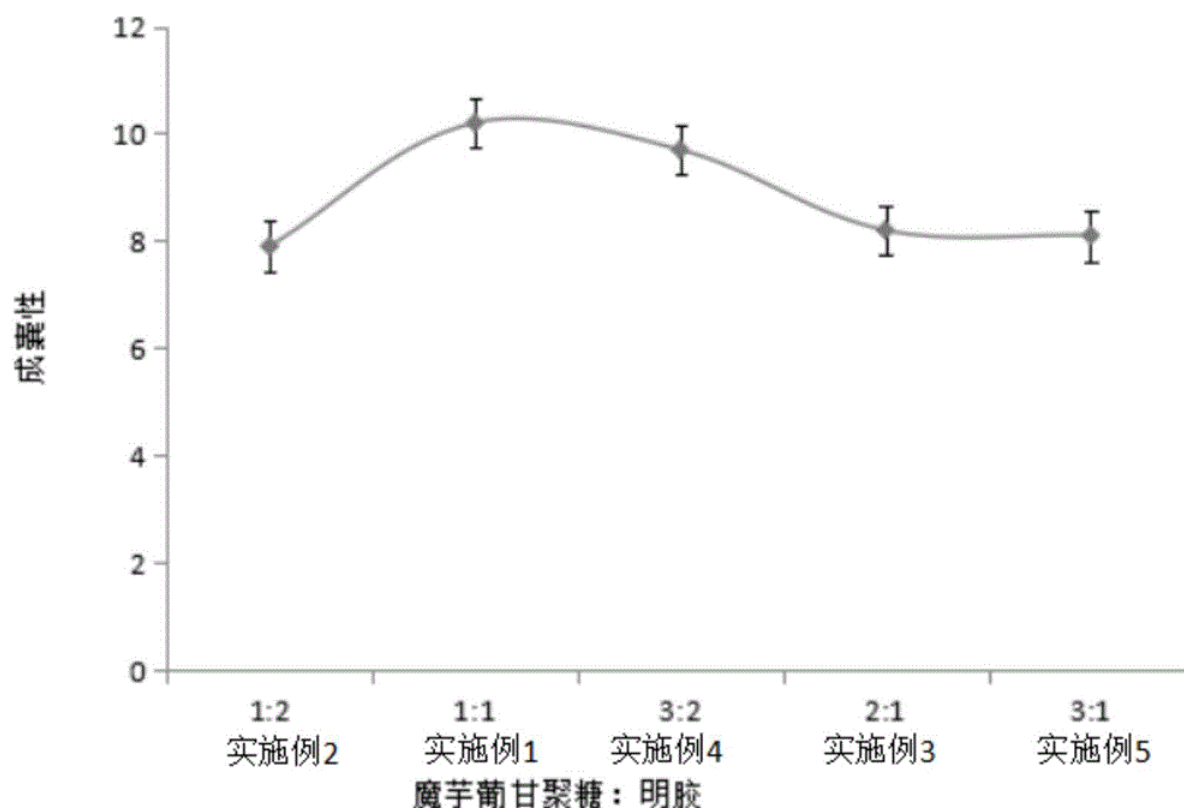
Latest standardized assignees - inventors removed

FIBROGEN

Family 38/100 - FAMPAT - ©Questel

Title

(CN107260702)

Preparation **method** of konjac glucomannan-**gelatin** based capsule**Images****Publication numbers with kind code & date**

CN107260702	B	2020-06-16	CN107260702B
CN107260702	A	2017-10-20	CN107260702

**Abstract**

(CN107260702)

The invention discloses a preparation **method** of a konjac glucomannan-**gelatin** based capsule. The **method** includes: using mannose to degrade konjac refined powder to obtain a konjac glucomannan degradation solution; adding glycerin into the konjac glucomannan degradation solution, stirring the substances evenly, then adding **gelatin**, performing stirring till complete dissolution of the **gelatin** in the degradation solution so as to obtain mixed sol; subjecting the mixed sol to degassing, then carrying out standing glue dipping, freezing, shell pulling, cutting and drying, thus obtaining the konjac glucomannan-**gelatin** based capsule. The konjac glucomannan-**gelatin** based capsule has the characteristics of uniform capsule shell thickness, easy shell pulling and no rupture, no insert split, few bubble, no collapse, and no thin head. Strength and elastic detection of the capsule shell shows that the friability is lower than that of single **gelatin** capsule shell, and the elasticity is stronger. Dissolution rate detection determines the drug release effect of the konjac glucomannan-**gelatin** capsule, and the test finds that drug release occurs at about 4-5min, and the dissolution rate at about 60min is 95.5%.

Inventors

LONG XIAOYAN

LUO XUEGANG

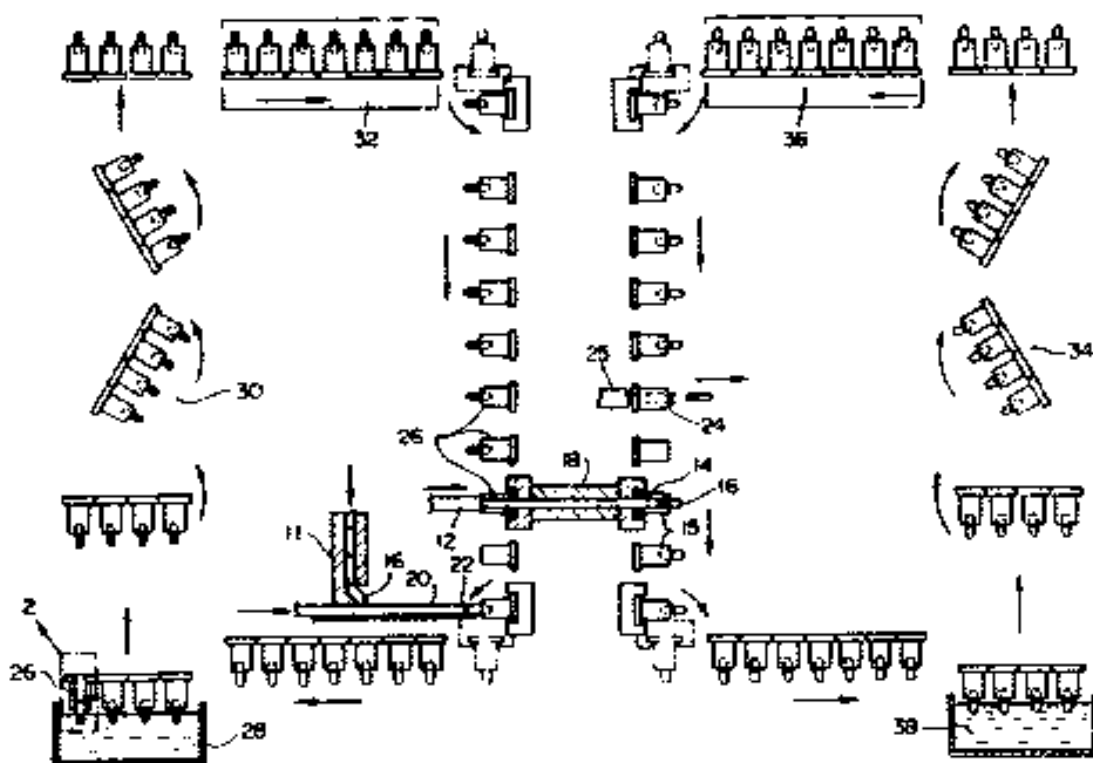
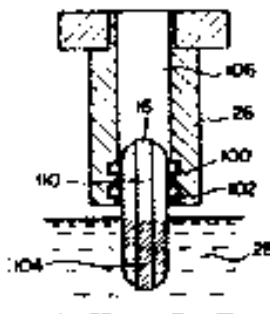
Latest standardized assignees - inventors removed

SOUTHWEST UNIVERSITY OF SCIENCE AND TECHNOLOGY

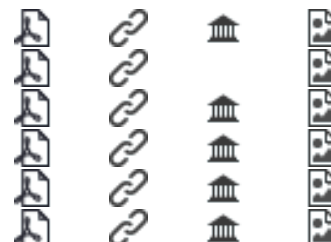
Family 39/100 - FAMPAT - ©Questel

Title

(EP-319318)

Method for double dipping **gelatin** coated caplets**Images****Publication numbers with kind code & date**

JP2788742	B2	1998-08-20	JP2788742
KR0136287	B1	1998-04-25	KR100136287
IE62539	B1	1995-02-08	IE--62539
CA1331566	C	1994-08-23	CA1331566
PT89143	B	1993-09-30	PT--89143
ES2034267	T3	1993-04-01	ES2034267



DE3874097	T2	1992-12-17	DE3874097				
DE3874097	D1	1992-10-01	DE3874097				
PH26756	A	1992-09-28	PH--26756				
MX164599	B	1992-09-04	MX-164599				
EP0319318	B1	1992-08-26	EP-319318				
GR1000299	B	1992-05-12	GR1000299				
AU620829	B2	1992-02-27	AU-620829				
NZ227049	A	1990-05-28	NZ-227049				
EP0319318	A3	1989-10-18	EP-319318				
PT89143	A	1989-09-14	PT--89143				
BR8806397	A	1989-08-22	BR8806397				
JP01207068	A	1989-08-21	JP01207068				
KR890009378	A	1989-08-01	KR19890009378				
AU2648488	A	1989-06-08	AU8826484				
EP0319318	A2	1989-06-07	EP-319318				
IE883613	L	1989-06-04	IE8803613				

Abstract

(EP0319318)

A novel capsule-like medicament and **method** for producing such medicaments are disclosed. The **method** provides a procedure for coating solid cores, such as caplets (16), with a first gelatinous coating (304) on one end (110), and then with a second gelatinous coating (306) on the other end (104) which is thicker than the first, to simulate the interlocking halves of a hollow capsule. The second, thicker gelatinous coating (306) can be provided with a single **gelatin** coating from a bath (38) having a higher viscosity than the bath used to provide the first gelatinous coating (304). Alternatively, the second gelatinous coating (306) can be provided by double dipping to provide layers of gelatinous material or **gelatin**.

Inventors

BERTA, NORBERT I.

Latest standardized assignees - inventors removed

MCNEIL

Family 40/100 - FAMPAT - ©Questel

Title

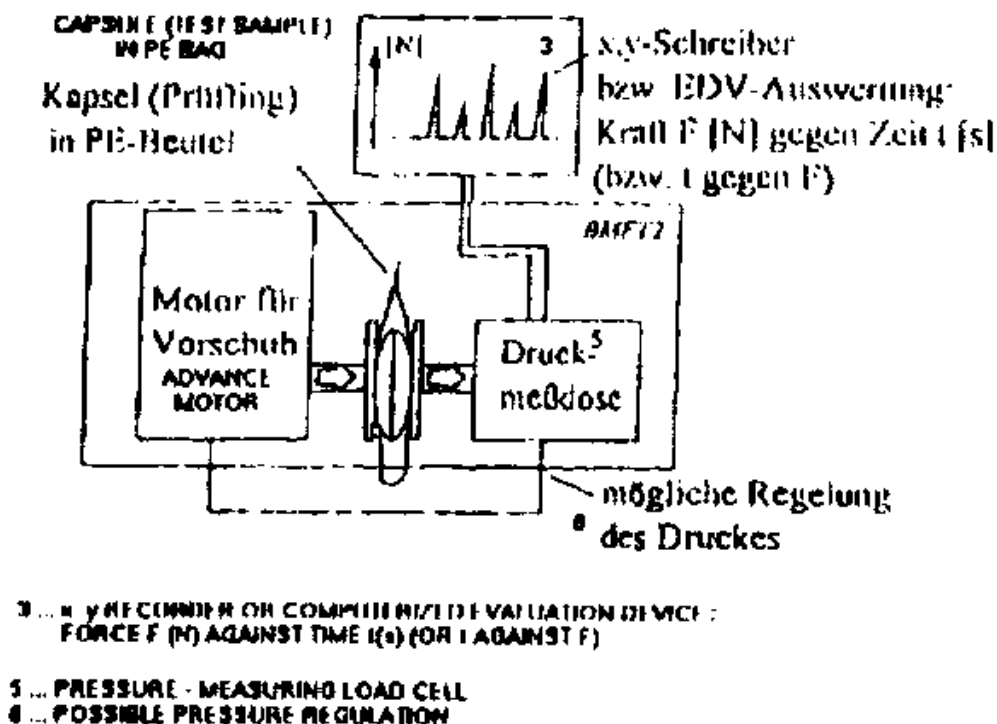
(WO9809150)

Method and device for determining the mechanical properties of soft **capsules**, and use thereof

Images

BURST-PRESSURE-MEASURING APPARATUS

Berstdruckmeßgerät



SCHEMATIC STRUCTURE OF THE DESCRIBED DEVICE FOR DETERMINING
THE BURST PRESSURE OF SOFT CAPSULES

Schematischer Aufbau der beschriebenen Vorrichtung zur Bestimmung
des Berstdruckes von Weichkapseln

Publication numbers with kind code & date

IN1568/CAL/1997	A	2016-08-26	IN1997KO01568
AU4205897	A	1998-03-19	AU9742058
DE19634704	A1	1998-03-05	DE19634704
WO98/09150	A1	1998-03-05	WO9809150



Abstract

(WO98/09150)

The invention concerns a bursting pressure measuring device, in particular for determining the mechanical properties of soft **capsules**, said device comprising the following units: drive means for the advance movement; pressure plates for holding the **capsules**; a pressure-measuring load cell; and a display device, such as an x-y recorder or a computerized evaluation device. According to the claimed **method**, the drive means, for example a motor, advances one of the two pressure plates until the capsule bursts at a given bursting pressure corresponding to the quality of the encapsulation or formation of the seam, or alternatively until a maximum pressure limit value is reached. During this process, the pressure is measured and displayed either alone or combined with other physical data, for example in a force/time or path/time diagram, via a display device or computerized evaluation unit coupled to the load cell. To that end, the capsule to be tested is located in a collector device. The invention also concerns the use of known devices for carrying out the **method** according to the invention. The invention further concerns the use of the **method** according to the invention and/or the

device according to the invention for optimizing and/or in-process monitoring of the production **method** of soft **capsules**, for the final inspection of the soft **capsules** produced and for studying the stability of soft **capsules** during storage.

Inventors

TRENKTROG TIMM

STEINHAEUSSER MARIO

STANG NORBERT

MORICK WOLFGANG

SCHOLZE MATTHIAS

Latest standardized assignees - inventors removed

AWD PHARMA

Family 41/100 - FAMPAT - ©Questel

Title

(EP2595597)

Apparatus and process for encapsulating **capsules** or other solid dosage forms within **capsules****Images**

JP2016198542	A	2016-12-01	JP2016198542				
US9433584	B2	2016-09-06	US9433584				
EP2595597	A4	2015-11-04	EP2595597				
US20150164814	A1	2015-06-18	US20150164814				
US8967989	B2	2015-03-03	US8967989				
MX2013000703	A	2014-07-24	MX2013000703				
KR20140045281	A	2014-04-16	KR20140045281				
JP2014505492	A	2014-03-06	JP2014505492				
BR112013001476	A1	2013-12-31	BR112013001476				
EP2595597	A2	2013-05-29	EP2595597				
CO6660491	A2	2013-04-30	CO6660491				
WO2012/017326	A3	2012-04-26	WO201217326				
US20120052118	A1	2012-03-01	US20120052118				
CA2817879	A1	2012-02-09	CA2817879				
WO2012/017326	A2	2012-02-09	WO201217326				

Abstract

(EP2595597)

The present invention provides an apparatus and process for making softgel **capsules** having incorporated therein other solid dosage forms selected from the group consisting of pellets, smaller **capsules**, smaller tablets, sustained release solid dosage forms, immediate release solid dosage forms, extended release solid dosage forms and zero order release solid dosage forms, said apparatus comprising: (a) two spreader boxes; (b) two casting drums; (c) a pair of rotary dies having means for suction; (d) a liquid fill system; (e) a wedge for heating gelatine ribbons and feeding said fill; and (f) two lateral dispensing devices said lateral dispensing devices including hoppers having said solid dosage forms, channelguides for transporting said solid dosage forms and a grasping claw for dispensing said solid dosage form into the softgel pocket formed in the rotary dies.

Inventors

ALTAMAR CARLOS SALAZAR

ANAYA GUSTAVO

TERAN BRAULIO

NAVARRO NEWMAN AGUAS

HERRERA WILMER

Latest standardized assignees - inventors removed

PROCAPS

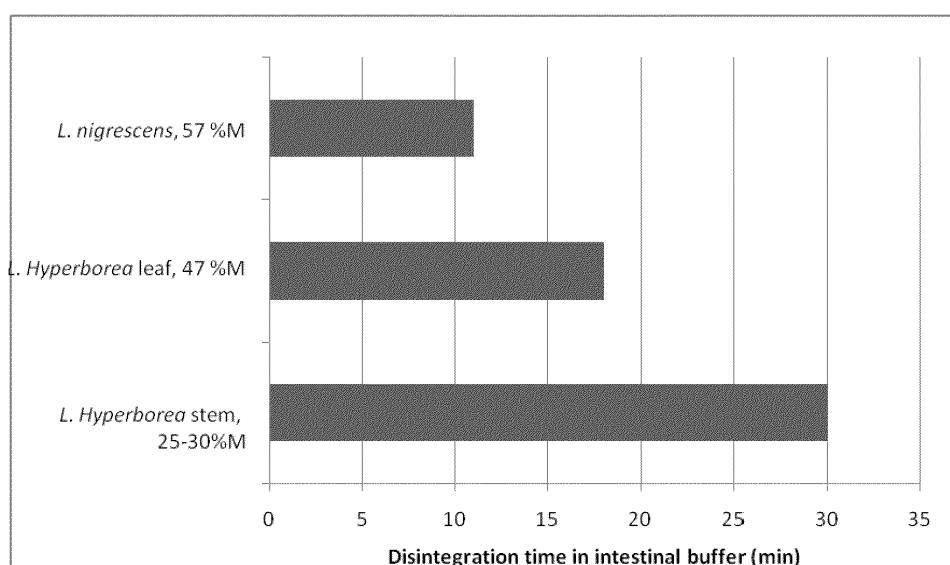
Family 42/100 - FAMPAT - ©Questel

Title

(EP2475394)

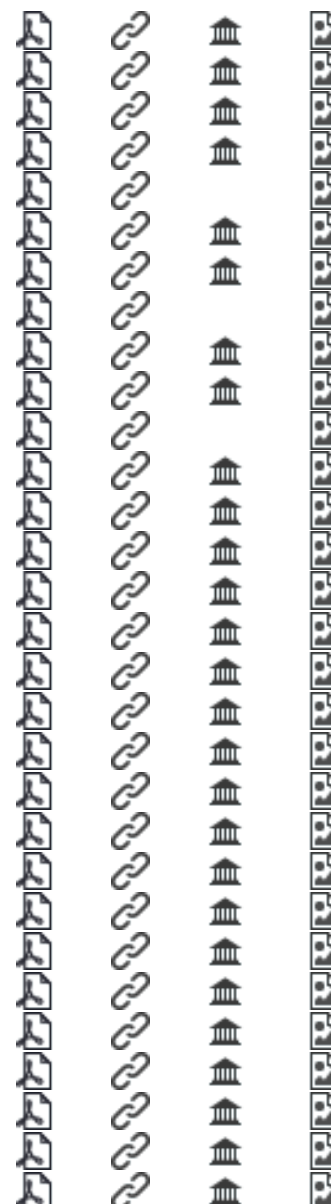
Seamless alginate **capsules****Images**

Figure 1

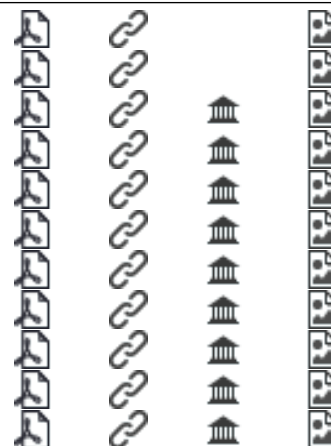


Publication numbers with kind code & date

IN330493	B	2020-01-28	IN-330493
EP2475395	B1	2019-11-13	EP2475395
BR112012005453	B1	2019-09-24	BR112012005453
ES2716984	T3	2019-06-18	ES2716984
TR201904204	T4	2019-04-22	TR201904204
EP2475394	B1	2019-03-20	EP2475394
IL218562	B	2018-09-20	IL-218562
KR101900505	B1	2018-09-19	KR101900505
IN297918	B	2018-06-21	IN-297918
US9895672	B2	2018-02-20	US9895672
KR101760534	B1	2017-07-21	KR101760534
IL218564	B	2017-05-29	IL-218564
BR112012005452	A2	2016-04-12	BR112012005452
BR112012005453	A2	2016-04-12	BR112012005453
EP2475395	A4	2015-12-23	EP2475395
EP2475394	A4	2015-08-19	EP2475394
US8980312	B2	2015-03-17	US8980312
JP5696149	B2	2015-02-13	JP5696149
JP5696150	B2	2015-02-13	JP5696150
CN102596251	B	2014-06-11	CN102596251B
CN102625715	B	2014-06-11	CN102625715B
JP2013504573	A	2013-02-07	JP2013504573
JP2013504574	A	2013-02-07	JP2013504574
IN0551/MUMNP/2012	A	2013-01-18	IN2012MN00551
IN0553/MUMNP/2012	A	2013-01-18	IN2012MN00553
BR112012005452	A1	2012-11-06	BR112012005452
CN102625715	A	2012-08-01	CN102625715
CN102596251	A	2012-07-18	CN102596251
EP2475394	A2	2012-07-18	EP2475394
EP2475395	A2	2012-07-18	EP2475395



KR20120070582	A	2012-06-29	KR20120070582
KR20120064108	A	2012-06-18	KR20120064108
IL218562	A	2012-05-31	IL-218562
IL218564	A	2012-05-31	IL-218564
WO2011/031621	A8	2012-04-19	WO201131621
WO2011/031621	A3	2011-08-04	WO201131621
WO2011/031617	A3	2011-07-28	WO201131617
WO2011/031617	A2	2011-03-17	WO201131617
WO2011/031621	A2	2011-03-17	WO201131621
US20110059165	A1	2011-03-10	US20110059165
US20110059166	A1	2011-03-10	US20110059166



Abstract

(EP2475394)

The present invention is directed to a dried seamless capsule comprising an alginate shell membrane encapsulating fill material, wherein: (i) said alginate shell membrane comprises a polyvalent metal ion alginate having: (a) an average M content of from 50%-62% by weight based on the weight of the M and G content, and (b) a viscosity of 35 to 80 cps when measured as a monovalent metal ion alginate in a 3.5% water solution at 20 °C using a Brookfield LV viscometer at 60 rpm and spindle #1; (ii) said alginate shell membrane encapsulates an oil present in an amount of at least 50% by weight of said fill material; (iii) said dried seamless capsule has a disintegration time of less than 12 minutes in an intestinal buffer after pretreatment for 20 minutes in a solution of 0.1 M NaCl and HCl, pH of 3, at 37 °C; and (iv) said dried seamless capsule has a dry break force strength of at least 7kg. The present invention is also directed to methods of making and using such dried seamless capsules.

Inventors

GASEROD OLAV

LARSEN CHRISTIAN KLEIN

ANDERSEN PEDER OSCAR

Latest standardized assignees - inventors removed

DUPONT NUTRITION BIOSCIENCES

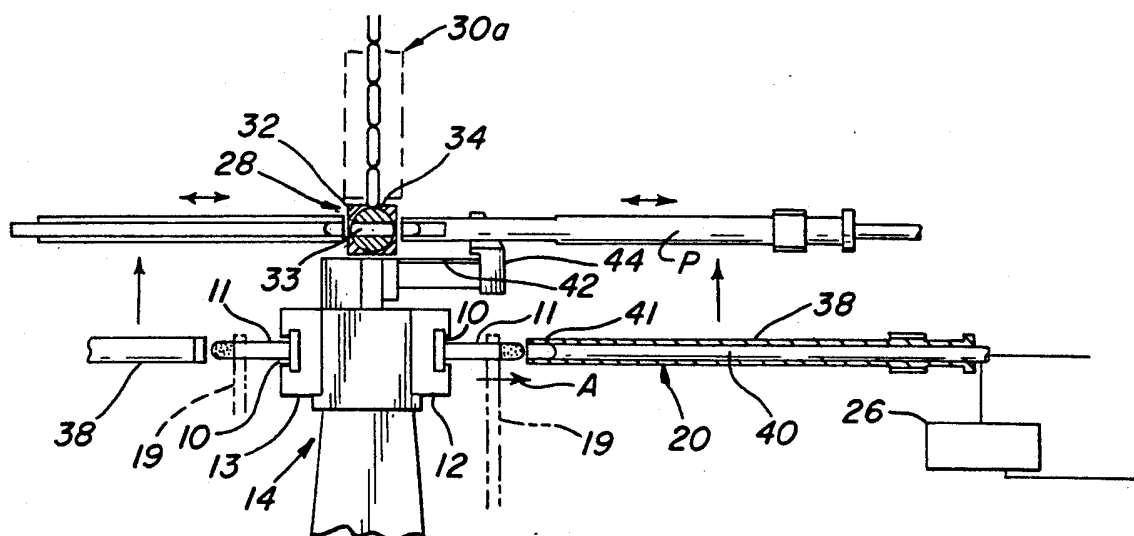
Family 43/100 - FAMPAT - ©Questel

Title

(EP-653995)

Encapsulation product, equipment and method

Images



JP3552719	B2	2004-05-14	JP3552719				
KR100294309	B1	2001-11-22	KR100294309				
CA2141866	C	2001-02-27	CA2141866				
GR3030303	T3	1999-09-30	GR3030303				
DK0653995	T3	1999-09-27	DK-653995T				
DE69324018	T2	1999-08-12	DE69324018				
DE69324018	D1	1999-04-22	DE69324018				
AT177696	T	1999-04-15	ATE177696				
EP0653995	B1	1999-03-17	EP-653995				
US5795588	A	1998-08-18	US5795588				
US5609010	A	1997-03-11	US5609010				
US5511361	A	1996-04-30	US5511361				
JPH08500073	A	1996-01-09	JP08500073				
EP0653995	A4	1995-11-22	EP-653995				
KR19950702921	A	1995-08-23	KR19957002921				
EP0653995	A1	1995-05-24	EP-653995				
US5317849	A	1994-06-07	US5317849				
CA2141866	A1	1994-02-17	CA2141866				
WO94/03365	A1	1994-02-17	WO9403365				

Abstract

(EP0653995)

Method and apparatus for encapsulating small articles such as medicines in caplet or cylindrical form are disclosed. **Gelatin** half **capsules** are formed on the pins (11) of pin blocks (10) and are delivered to a station at which they are trimmed and fitted over the opposite ends of the product to be encapsulated. The capsule halves are first dried to a condition in which they have about 20 wt. % moisture and are thereafter press fitted over the ends of the caplets and allowed to dry to shrink fit tightly onto the caplets making it virtually impossible to remove them from their **gelatin** coverings without leaving visible evidence of tampering. The finished product has a smoother outer surface which lends itself to overprinting.

Inventors

SAUTER ERICH W

Latest standardized assignees - inventors removed

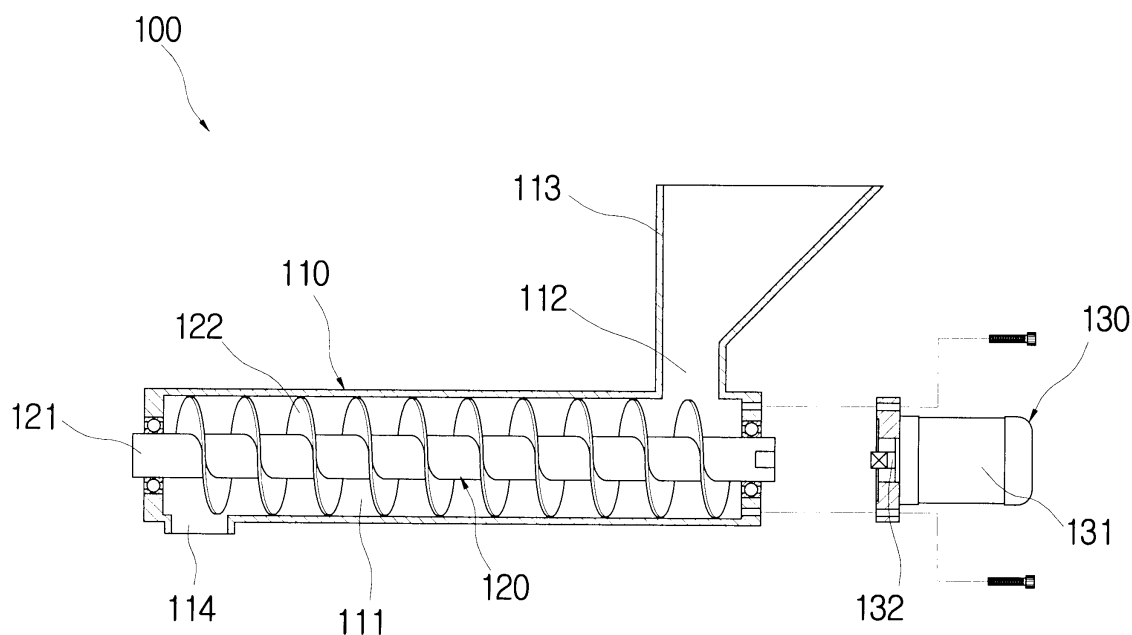
CAPSUGEL BELGIUM

Family 44/100 - FAMPAT - ©Questel

Title

(KR200338038U)

Apparatus transfer of system **manufacturing** soft **gelatin** capsule**Images**

**Publication numbers with kind code & date**

KR200338038

Y1 2004-01-13

KR200338038U

**Abstract**

(KR200338038)

In accordance with one aspect of the present invention relates, in a soft **gelatin** capsule is molded into a soft **gelatin** capsule made of a soft **gelatin** capsule by the transfer device to transfer to the dryer is dried in a conventional soft **gelatin** capsules manufacturing system, wherein the transfer device comprises a soft **gelatin** capsule to be communicated with the inlet of the dryer is disposed removably fastened, a certain interval along the longitudinal direction inside the hollow portion is formed and guided, wherein the soft **gelatin** capsules are molded into the upper end portion of the soft **gelatin** capsule prepared in the guide to enter the hollow part having an inlet in communication with the hopper is formed, the guide to the other end portion into the hollow portion of the soft **gelatin** capsule is a soft **gelatin** capsule dryer so that the inlet opening of the outlet port is formed as a cylinder; guidance of the transfer cylinder rotatably disposed in the hollow shaft to the outer periphery of the cylinder axis of the soft **gelatin** capsule inlet opening of the outlet of the transfer cylinder to push the direction along the length direction to convey the plate screw shape are integrally formed with the feed screw and subsequently; guidance of the transfer cylinder coupled to the hollow portion of the feed screw and a rotating cylinder inlet opening of the feed screw for conveying the soft **gelatin** capsules to exhaust outlet of the transfer cylinder and the drive means may be made of a soft **gelatin** capsule of the delivery device is provided of a **manufacturing** system.

Inventors

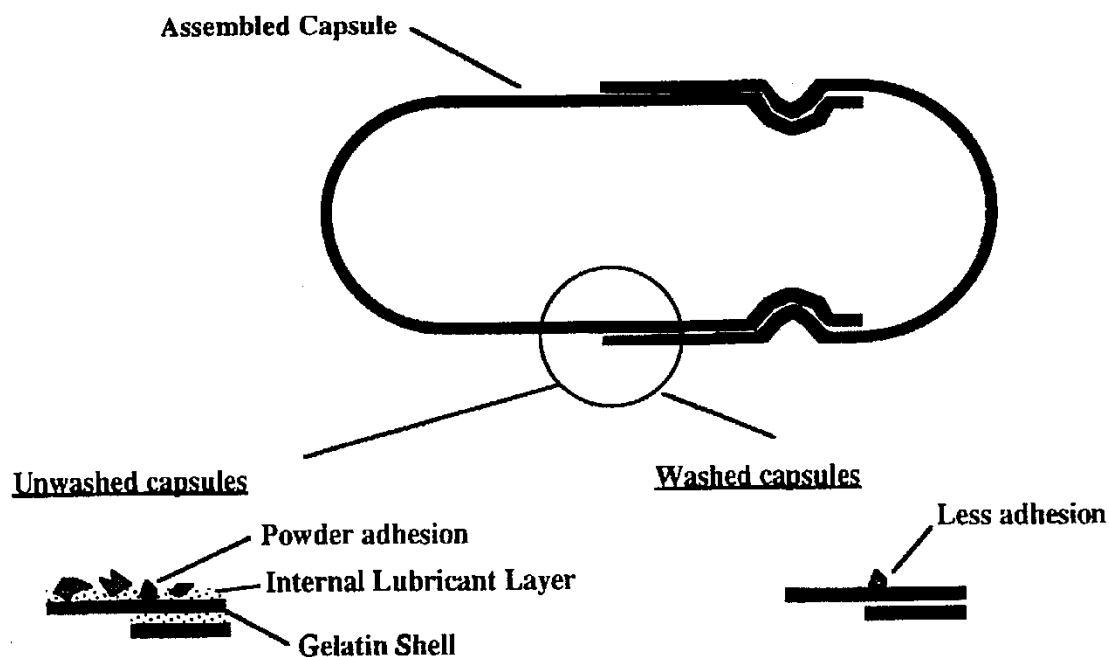
SIM, DONG BIN

Family 45/100 - FAMPAT - ©Questel

Title

(EP-768873)

A **method** for treating **capsules** used for drug storage**Images**



Publication numbers with kind code & date

JPH10502283	A	1998-03-03	JP10502283
US5641510	A	1997-06-24	US5641510
EP0768873	A1	1997-04-23	EP-768873
MX9606328	A	1997-03-29	MX9606328
CA2191709	A1	1996-01-18	CA2191709
WO96/01105	A1	1996-01-18	WO9601105



Abstract

(EP0768873)

Capsules (such as hard **gelatin**, cellulose and plastic **capsules**) containing pharmaceutical powders which are administered to a patient via inhalation are treated so as to increase the effective amount of the pharmaceutical agent reaching the respiratory system of the patient. The **capsules** are coated internally with a lubricant during manufacture and in one aspect, the **method** involves exposing the lubricant-coated inner surface of the capsule to a pharmaceutically acceptable solvent which dissolves the lubricant. Generally, the solvent is volatile, and bactericidal (e.g. ethanol). The pharmaceutical powder is inserted in the capsule following this washing procedure. Alternatively, the lubricant-coated capsule is dusted internally with a dusting agent such as a salt (e.g. sodium chloride) or a sugar (e.g. lactose, mannitol, trehalose or sucrose) prior to inserting the pharmaceutical powder inside the capsule. The invention also pertains to a capsule, optionally containing the pharmaceutical powder therein, which has been treated according to the methods discussed above.

Inventors

CLARK ANDREW R

GONDA IGOR

Latest standardized assignees - inventors removed

GENENTECH

Family 46/100 - FAMPAT - ©Questel

Title

(EP-493489)

Film-enrobed unitary-core medicament and the like

Images

AU669616	B2	1996-06-13	AU-669616				
US5459983	A	1995-10-24	US5459983				
AU6195894	A	1994-07-07	AU9461958				
AU648270	B2	1994-04-21	AU-648270				
EP0493489	A4	1993-02-10	EP-493489				
JPH05500514	A	1993-02-04	JP05500514				
KR19927003029	A	1992-12-17	KR19927003029				
US5146730	A	1992-09-15	US5146730				
BR9007666	A	1992-07-21	BR9007666				
EP0493489	A1	1992-07-08	EP-493489				
AU6449090	A	1991-04-18	AU9064490				
WO91/04017	A1	1991-04-04	WO9104017				
CA2003529	A1	1991-03-20	CA2003529				
CA2214106	A1	1991-03-20	CA2214106				

Abstract

(EP0493489)

A medicine tablet (10) has a preformed unitary core (13) enrobed by a hard **gelatin** coating (12) which is stretched around the core and is sealed in edge-to-edge manner at all locations along a seam (15) which encircles the core. The enrobed tablet is made by introducing a core into contact with two plastic and elastic **gelatin** films (36, 37) at a nip between two rotary discs (38, 39) across the recessed (108) surfaces of which the films are tensioned. The core is contacted with the films at locations over the recesses so that **die** rotation causes the films to stretch in the recesses around the core into conformance with the contours and to seal to each other along the seal line. The films are then severed along that line. The films, as applied to the core, adhere tightly to the core and dry to a hard state.

Inventors

SADEK HANI

DIETEL GREGORY LOUIS

Latest standardized assignees - inventors removed

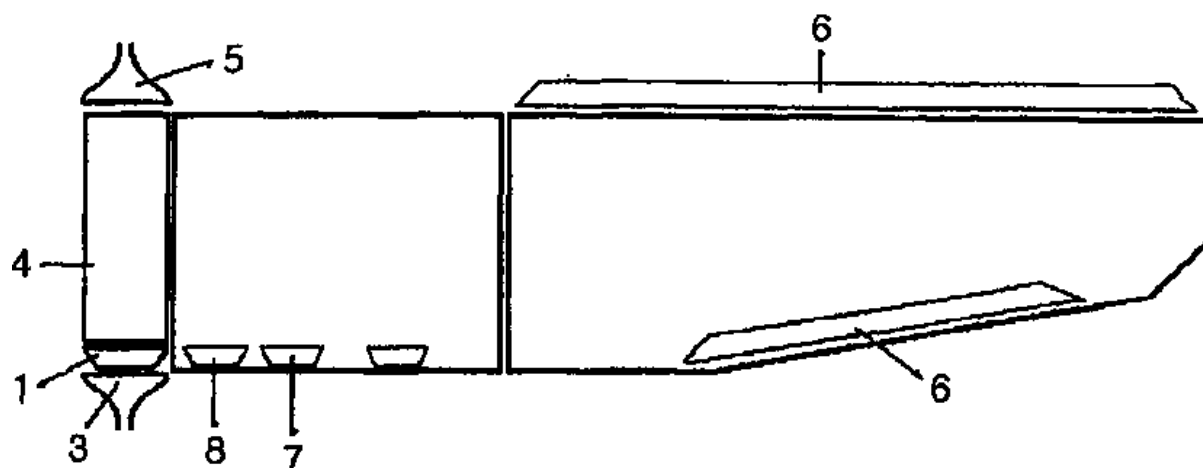
BANNER PHARMACAPS

Family 47/100 - FAMPAT - ©Questel

Title

(FR2788778)

Composition for the manufacture of **capsules** has botanical hard shell, their **method** of manufacture and **capsules** thus obtained

Images**Publication numbers with kind code & date**

BE1013079	A3	2001-09-04	BE1013079				
ES2148114	B1	2001-04-16	ES2148114				

ES2148114	B1	2001-04-16	ES2148114				
ES2148114	A1	2000-10-01	ES2148114				
KR20000052283	A	2000-08-16	KR20000052283				
DE19926714	A1	2000-08-10	DE19926714				
JP2000212070	A	2000-08-02	JP2000212070				
FR2788778	A1	2000-07-28	FR2788778				

Abstract

(FR2788778)

Composition (I) for producing hard **capsules** comprises (in %): (a) purified water (76.15-81.04); (b) hydroxypropyl methylcellulose (HPMC) with a viscosity of 4-8 cP as a 2% solution at 20 deg C (18-22); (c) gellan gum (0.8-1.2); (d) trisodium citrate (0.05-0.1); (e) glycerol (0.01-0.1); and (f) sucrose fatty acid ester (0.1-0.5). Independent claims are also included for the following: (1) hard **capsules** produced from (I); (2) a process for producing hard **capsules**; (3) **capsules** produced as in (2).

(From DE19926714 A1)

Inventors

YANG JOO HWAN

Latest standardized assignees - inventors removed

SU HEUNG CAPSULE

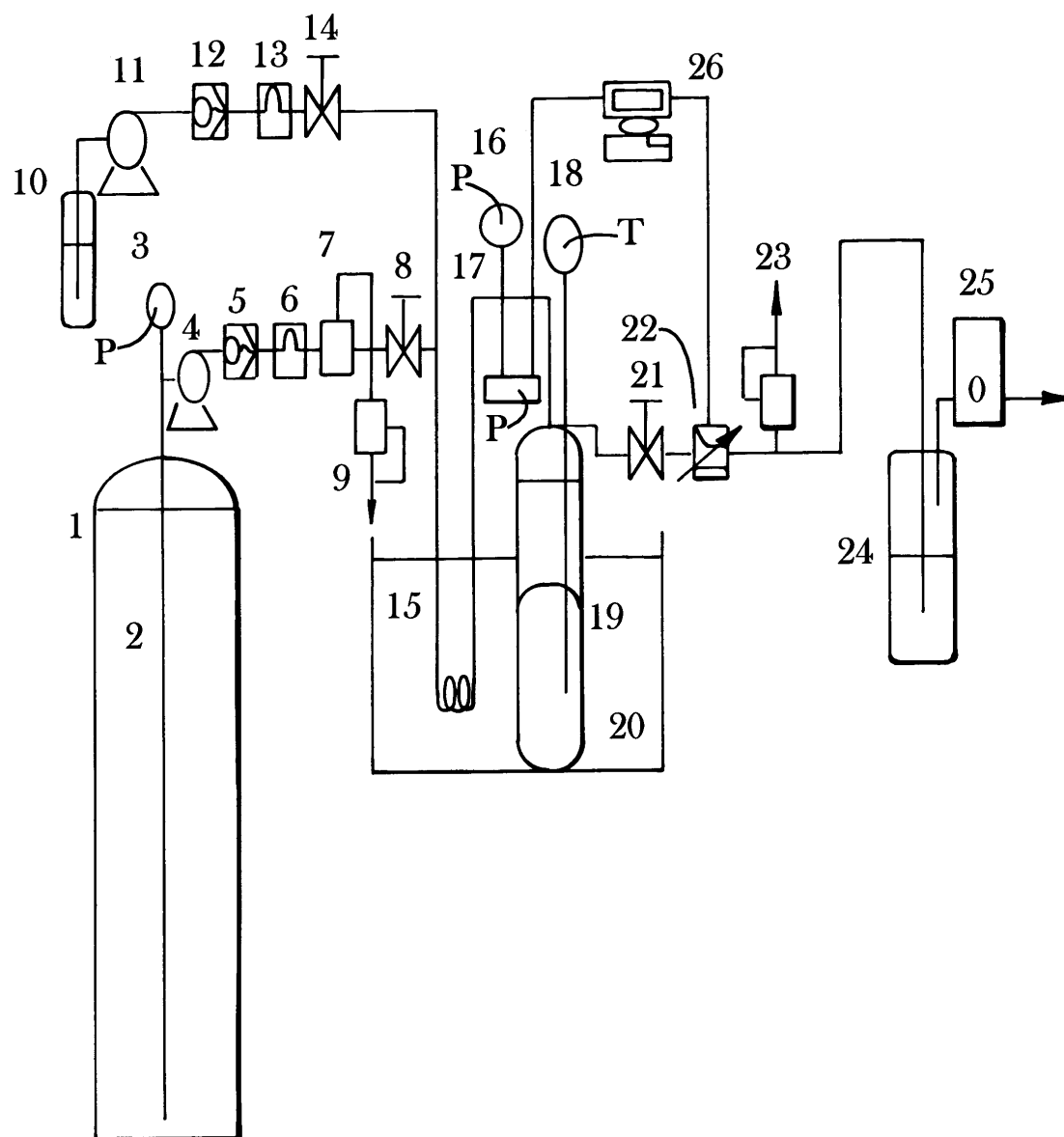
Family 48/100 - FAMPAT - ©Questel

Title

(EP1721605)

Methods of treating **capsules** and dry, powdered pharmaceutical formulations

Images



Flow Diagram for SFE Unit

Publication numbers with kind code & date

BR0108855	B1	2009-12-01	BR200108855
CZ300371	B6	2009-05-06	CZ-300371
PL198877	B1	2008-07-31	PL-198877
CZ299101	B6	2008-04-23	CZ-299101
CA2401005	C	2008-03-18	CA2401005
ES2292563	T3	2008-03-16	ES2292563
DE60130874	T2	2008-02-07	DE60130874
CA2302276	C	2008-02-05	CA2302276
KR100799894	B1	2008-01-31	KR100799894
IN0972/MUMNP/2005	A	2007-12-21	IN2005MN00972
DE60130874	D1	2007-11-22	DE60130874



DE60130874	D1	2007-11-22	DE60130874				
DK1265683	T3	2007-11-05	DK1265683T				
AT375190	T	2007-10-15	ATE375190				
EP1265683	B1	2007-10-10	EP1265683				
PL195462	B1	2007-09-28	PL-195462				
ES2281141	T3	2007-09-16	ES2281141				
BG65169	B1	2007-05-31	BG--65169				
SI1024794	T1	2007-04-30	SI1024794T				
DE69836822	T2	2007-04-26	DE69836822				
DK1024794	T3	2007-04-10	DK1024794T				
PT1024794	E	2007-02-28	PT1024794				
DE69836822	D1	2007-02-15	DE69836822				
AT350019	T	2007-01-15	ATE350019				
EP1024794	B1	2007-01-03	EP1024794				
EP1721605	A1	2006-11-15	EP1721605				
IL151041	B	2006-08-01	IL-151041				
RU2271850	C2	2006-03-20	RU2271850				
IL134731	B	2006-01-15	IL-134731				
AU2001236524	B2	2005-03-17	AU2001236524				
CN1182904	C	2005-01-05	CN1182904C				
RU2238719	C2	2004-10-27	RU2238719				
PL357138	A1	2004-07-12	PL2001357138				
IN1159/MUMNP/2002	A	2004-06-05	IN2002MN01159				
NZ521725	A	2004-05-28	NZ-521725				
TW581689	B	2004-04-01	TW-581689				
RU2002124707	A	2004-03-27	RU2002124707				
US20040014590	A1	2004-01-22	US20040014590				
JP2003525730	A	2003-09-02	JP2003525730				
US6610624	B2	2003-08-26	US6610624				
KR20030067478	A	2003-08-14	KR20030067478				
HU0300098	A2	2003-06-28	HU200300098				
BR0108855	A	2003-04-29	BR200108855				
CN1411388	A	2003-04-16	CN1411388				
ZA200206989	B	2003-04-07	ZA200206989				
CZ20022972	A3	2003-03-12	CZ200202972				
MXPA02008392	A	2003-02-12	MX2002PA008392				
NZ504394	A	2002-12-20	NZ-504394				
EP1265683	A1	2002-12-18	EP1265683				
AU753076	B2	2002-10-10	AU-753076				
US20010036898	A1	2001-11-01	US20010036898				
JP2001519380	A	2001-10-23	JP2001519380				
US6294194	B1	2001-09-25	US6294194				
AU3652401	A	2001-09-17	AU200136524				
CA2401005	A1	2001-09-13	CA2401005				
WO01/66214	A1	2001-09-13	WO200166214				
EE200000292	A	2001-08-15	EE200000292				
CN1306420	A	2001-08-01	CN1306420				
PL342650	A1	2001-06-18	PL98342650				
US6228394	B1	2001-05-08	US6228394				
IL134731	A	2001-04-30	IL-134731				
HU0003990	A3	2001-04-28	HU200003990				
KR20010031097	A	2001-04-16	KR20010031097				

HU0003990	A2	2001-03-28	HU200003990				
CO5011100	A1	2001-02-28	CO5011100A1				
BG104317	A	2000-12-29	BG-104317				
TR200001000	T2	2000-11-21	TR200001000				
BR9814818	A	2000-10-03	BR9814818				
CZ20001365	A3	2000-09-13	CZ200001365				
EP1024794	A1	2000-08-09	EP1024794				
AR010950	A1	2000-07-12	AR--10950				
WO99/18939	A9	1999-06-03	WO9918939				
ZA989261	B	1999-05-31	ZA-989261				
AU9783898	A	1999-05-03	AU9897838				
CA2302276	A1	1999-04-22	CA2302276				
WO99/18939	A1	1999-04-22	WO9918939				
UY25208	A1	1999-04-09	UY--25208				

Abstract

(EP1721605)

Undesirable materials present in **gelatin**, cellulose or plastic **capsules** used for storing a dry, powdered pharmaceutical formulation are extracted by supercritical fluids. The **method** is also used for removing undesirable material from drug powder. The amount of powder retained in the **capsules** following inhalation is minimized.

Inventors

HORHOTA STEPHEN T

SAIM SAID

Latest standardized assignees - inventors removed

BOEHRINGER INGELHEIM PHARMACEUTICALS

Family 49/100 - FAMPAT - ©Questel

Title

(EP-633732)

Aqueous liquid flavor oil **capsules**, **method** of making and using in foods**Publication numbers with kind code & date**

JP3213319	B2	2001-10-02	JP3213319			
RO116336	B1	2001-01-30	RO-116336			
SK281186	B6	2001-01-18	SK-281186			
DE69300768	T3	2000-09-14	DE69300768			
ES2081214	T5	2000-05-01	ES2081214			
DK0633732	T4	2000-04-17	DK-633732T			
EP0633732	B2	2000-01-12	EP-633732			
KR100220500	B1	1999-09-15	KR100220500			
BR9306153	A	1998-06-30	BR9306153			
CA2130442	C	1997-12-23	CA2130442			
RU2089077	C1	1997-09-10	RU2089077			
CZ282380	B6	1997-07-16	CZ-282380			
RU94045815	A	1996-10-10	RU94045815			
RU94045815	A1	1996-10-10	RU94045815			
DE69300768	T2	1996-06-05	DE69300768			
AU669166	B2	1996-05-30	AU-669166			
NZ251818	A	1996-05-28	NZ-251818			
DK0633732	T3	1996-02-26	DK-633732T			
JPH08501441	A	1996-02-20	JP08501441			
ES2081214	T3	1996-02-16	ES2081214			
DE69300768	D1	1995-12-14	DE69300768			

AT129855	T	1995-11-15	ATE129855
EP0633732	B1	1995-11-08	EP-633732
CZ236594	A3	1995-05-17	CZ9402365
KR19957000690	A	1995-02-20	KR19957000690
KR950700690	A	1995-02-20	KR19950700690
EP0633732	A1	1995-01-18	EP-633732
SK114994	A3	1995-01-05	SK9401149
FI944517	A	1994-09-29	FI9404517
FI944517	A0	1994-09-29	FI9404517
WO93/19621	A3	1993-11-25	WO9319621
AU3969893	A	1993-11-08	AU9339698
CA2130442	A1	1993-10-14	CA2130442
WO93/19621	A2	1993-10-14	WO9319621



Abstract

(EP0633732)

Aqueous liquid flavor oil **capsules** are made by coacervation and used in a wide variety of flavoring foods such as deep fat frying, baking microwaving and extrusion applications.

Inventors

WAMPLER DANIEL J

SOPER JON C

Latest standardized assignees - inventors removed

GIVAUDAN ROURE

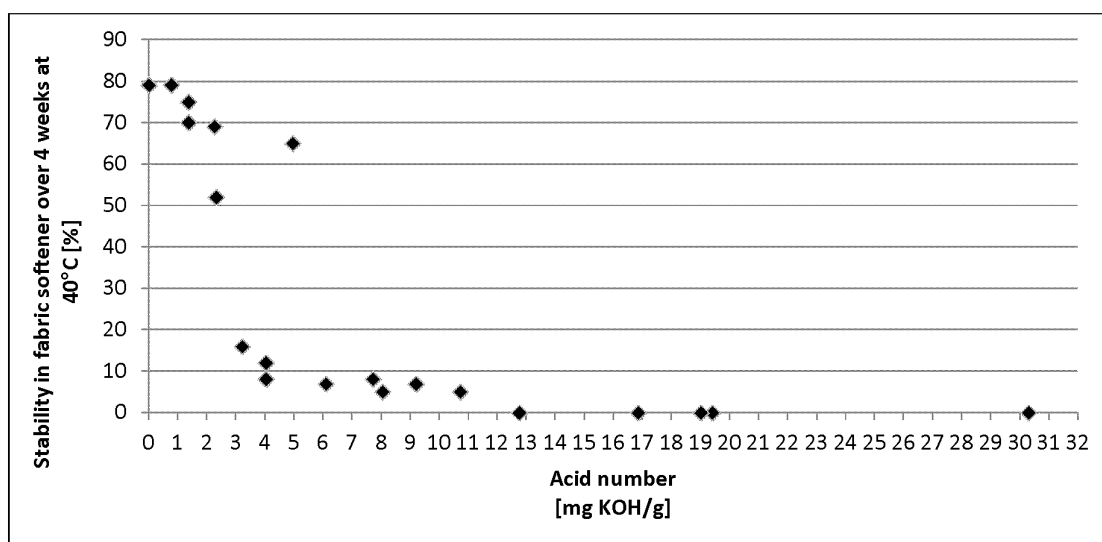
Family 50/100 - FAMPAT - ©Questel

Title

(EP3423028)

Method for the production of encapsulated fragrance with improved stability against detergents

Images



Publication numbers with kind code & date

EP3423028	B1	2020-04-08	EP3423028
JP2019508238	A	2019-03-28	JP2019508238
US20190062676	A1	2019-02-28	US20190062676
EP3423028	A1	2019-01-09	EP3423028
CN109152711	A	2019-01-04	CN109152711
WO2017/148504	A1	2017-09-08	WO2017148504



Abstract

(EP3423028)

The invention relates to a **method** for producing scent **capsules** with improved surfactant stability, comprising the following steps: (a) providing a scent composition containing at least one scent which has at least one functional group that can form an acid group by means of oxidation or hydrolysis, and (b) encapsulating the scent mixture, characterised in that a scent composition is used that has an acid value of no more than 5 mg KOH/g immediately before encapsulation.

Inventors

OTT PATRICK

GREGOR DANIELA

BEHRENS KOLJA

BEGEMANN WIEBKE

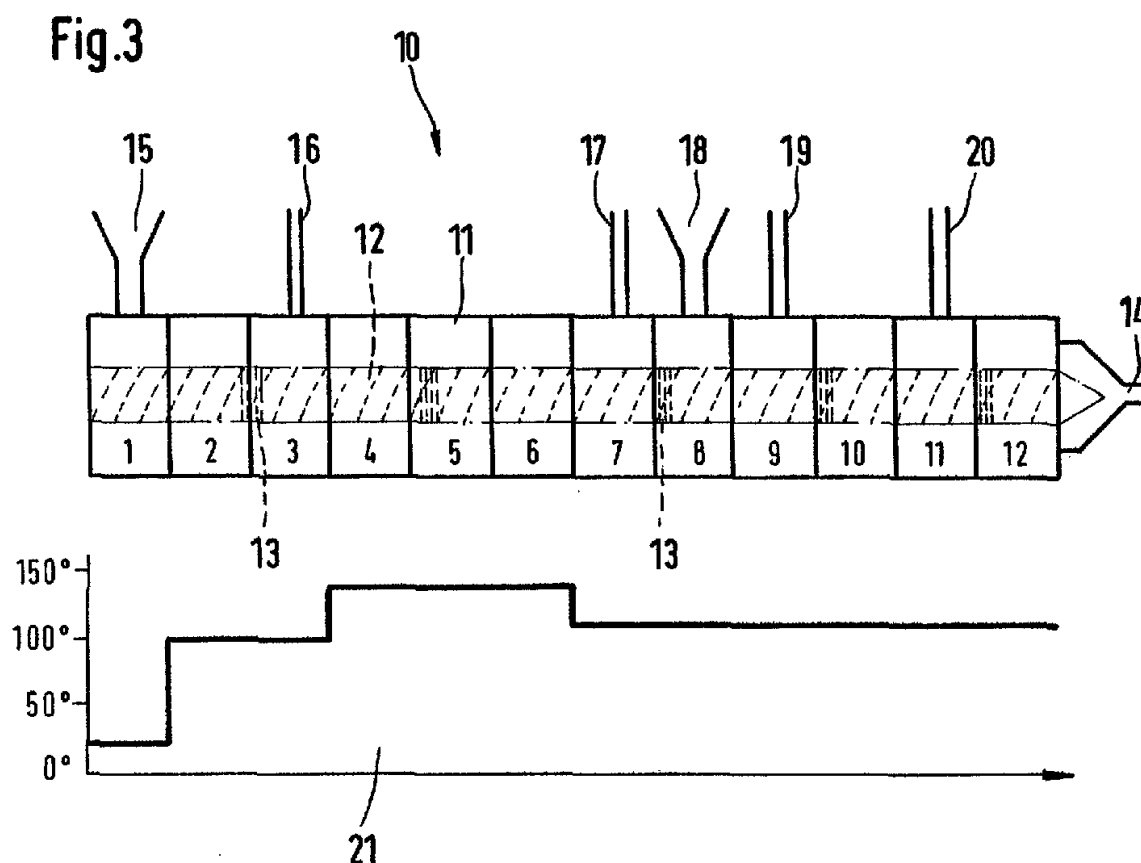
Latest standardized assignees - inventors removed

SYMRISE

Family 51/100 - FAMPAT - ©Questel

Title

(EP1258242)

Process of **manufacturing** shaped bodies, in particular soft **capsules****Images****Publication numbers with kind code & date**[EP1258242](#)

A1 2002-11-20

EP1258242

**Abstract**

(EP1258242)

Molded articles, preferably soft **capsules**, are prepared by: (A) mixing a plant derived biopolymer with a liquid plasticizer to form a homogeneous raw material mixture; and (B) melting raw material and forming a film and molded articles. The moisture content of all components in the process from the raw material mixture to the finished molded article is defined or controlled without a drying process. Molded articles, preferably soft **capsules**, are prepared by: (A) mixing at least a first

[CA2379276](#)

A1 2001-02-08

CA2379276

[WO01/08631](#)

A1 2001-02-08

WO200108631

[EP1072245](#)

A1 2001-01-31

EP1072245

**Abstract**

(EP1072245)

The invention is concerned with a **method** of sealing a hardshell capsule having coaxial body parts which overlap when telescopically joined with each other, thereby forming a gap around a circumference of the capsule, comprising the steps of individually applying a sealing liquid including a solvent uniformly to the external edge of the gap of a capsule to be sealed to form a liquid ring around the circumference of the capsule, removing excess sealing liquid from the exterior of the capsule, drying the capsule by applying thermal energy from outside while gently tumbling and conveying the capsule on a spiral path. <IMAGE>

Inventors

SCOTT ROBERT

CADE DOMINIQUE

PETITJEAN FRANCOIS

DEFORCHE GUY

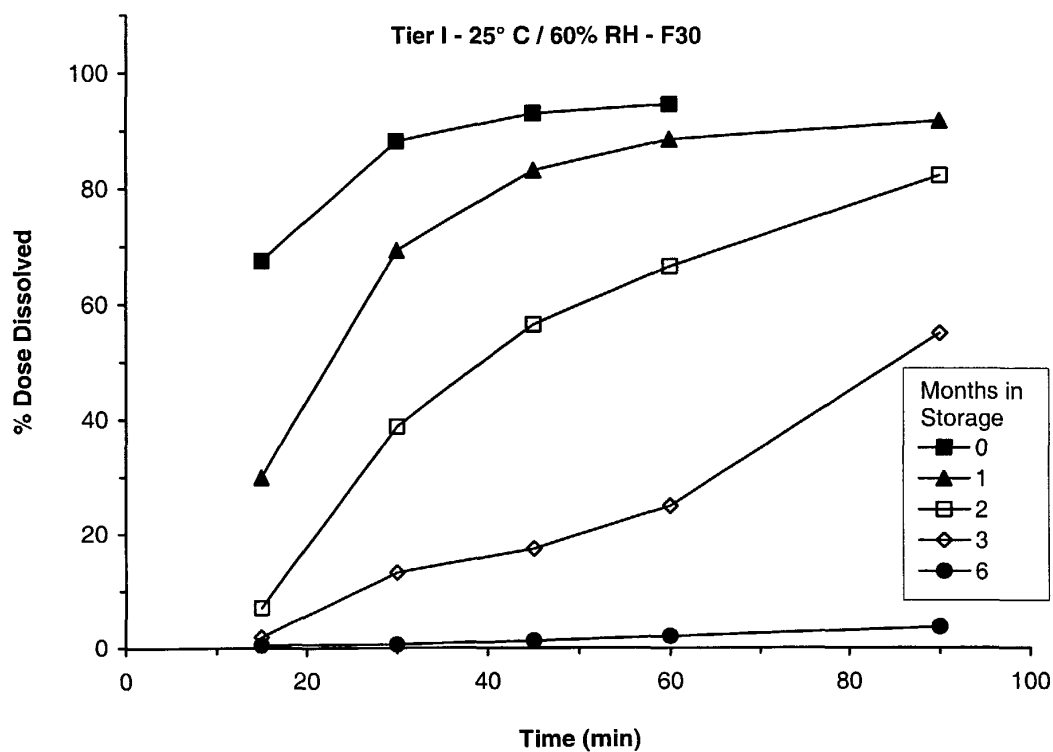
Latest standardized assignees - inventors removed

WARNER LAMBERT

Family 53/100 - FAMPAT - ©Questel

Title

(EP1526844)

Pellicle-resistant **gelatin** capsule**Images****Publication numbers with kind code & date**[JP2006500389](#)

A 2006-01-05

JP2006500389

[JP2005538993](#)

A 2005-12-22

JP2005538993

[JP2005538994](#)

A 2005-12-22

JP2005538994



JP2005538102	A	2005-12-15	JP2005538102				
BR0312875	A	2005-06-28	BR200312875				
BR0313064	A	2005-06-28	BR200313064				
BR0313149	A	2005-06-28	BR200313149				
BR0313150	A	2005-06-28	BR200313150				
MXPA05001166	A	2005-05-16	MX2005PA001166				
MXPA05001167	A	2005-05-16	MX2005PA001167				
EP1526844	A2	2005-05-04	EP1526844				
EP1526845	A2	2005-05-04	EP1526845				
EP1526846	A2	2005-05-04	EP1526846				
EP1526847	A2	2005-05-04	EP1526847				
MXPA05001272	A	2005-04-28	MX2005PA001272				
MXPA05000862	A	2005-04-19	MX2005PA000862				
WO2004/022032	A3	2004-08-12	WO200422032				
WO2004/010973	A3	2004-08-05	WO200410973				
WO2004/010974	A3	2004-08-05	WO200410974				
WO2004/010972	A3	2004-07-29	WO200410972				
AU2003257102	A1	2004-03-29	AU2003257102				
AU2003257102	A8	2004-03-29	AU2003257102				
CA2493974	A1	2004-03-18	CA2493974				
WO2004/022032	A2	2004-03-18	WO200422032				
AU2003257103	A1	2004-02-16	AU2003257103				
AU2003257103	A8	2004-02-16	AU2003257103				
AU2003257981	A1	2004-02-16	AU2003257981				
AU2003257981	A8	2004-02-16	AU2003257981				
AU2003257982	A1	2004-02-16	AU2003257982				
AU2003257982	A8	2004-02-16	AU2003257982				
CA2493980	A1	2004-02-05	CA2493980				
CA2494069	A1	2004-02-05	CA2494069				
CA2494358	A1	2004-02-05	CA2494358				
WO2004/010972	A2	2004-02-05	WO200410972				
WO2004/010973	A2	2004-02-05	WO200410973				
WO2004/010974	A2	2004-02-05	WO200410974				

Abstract

(EP1526844)

The present invention relates to compositions suitable for use in preparing **gelatin capsules**, to **gelatin capsules** exhibiting reduced cross-linking, and to methods of preparing such **gelatin capsules**.

Inventors

GAO PING

Latest standardized assignees - inventors removed

PHARMACIA

Family 54/100 - FAMPAT - ©Questel

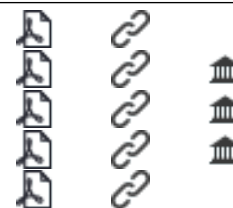
Title

(EP1210936)

Gelatin capsule**Publication numbers with kind code & date**

DE60100839	T2	2004-07-22	DE60100839			
DE60100839	D1	2003-10-30	DE60100839			
EP1210936	B1	2003-09-24	EP1210936			
JP3444418	B2	2003-09-08	JP3444418			

KR100393920	B1	2003-08-06	KR100393920
US20020098302	A1	2002-07-25	US20020098302
JP2002167444	A	2002-06-11	JP2002167444
EP1210936	A1	2002-06-05	EP1210936
KR20020041517	A	2002-06-03	KR20020041517

**Abstract**

(EP1210936)

The invention provides a process for the preparation of **gelatin capsules**, in particular **capsules** having reduced incidence of static electricity and enhanced capsule film surface lubrication, especially so-called hard shell **gelatin capsules**, said process comprising: i) forming an emulsion containing diacetylated monoglyceride and sodium lauryl sulphate; ii) mixing said emulsion and a **gelatin** solution in a weight ratio of 0.3 to 1.0 parts diacetylated monoglyceride and surfactant to 100 parts **gelatin**; and iii) forming said **capsules**.

Inventors

YANG JOO HWAN

Latest standardized assignees - inventors removed

SUHEUNG CAPSULE

Family 55/100 - FAMPAT - ©Questel

Title

(EP-530833)

Process to prepare hard gelatine **capsules** containing chinese herbal extracts**Publication numbers with kind code & date**

JP3269131	B2	2002-03-25	JP3269131
DE69209942	T2	1996-09-05	DE69209942
ES2088523	T3	1996-08-16	ES2088523
DE69209942	D1	1996-05-23	DE69209942
AT136785	T	1996-05-15	ATE136785
EP0530833	B1	1996-04-17	EP-530833
US5318798	A	1994-06-07	US5318798
JP05194246	A	1993-08-03	JP05194246
EP0530833	A1	1993-03-10	EP-530833

**Abstract**

(EP0530833)

When a powdered extract of Kampo medicine is encapsulated as such in hard **capsules**, the pharmaceutical effects of the Kampo medicine cannot be fully achieved, since the dissolution of the content of the hard **capsules** requires a long period of time. Therefore, the present invention aims at providing Kampo medicine hard **capsules** having good dissolution properties. The present invention provides a process for producing Kampo medicine hard **capsules** which comprises compacting Kampo medicine extract powder, mixing magnesium stearate with the compacted Kampo medicine extract powder and filing the mixture into **gelatin** hard **capsules**. It is preferable that the weight ratio of the magnesium stearate to the Kampo medicine powdered extract ranges from 0.5/100 to 3/100. Furthermore, it is preferable that said Kampo medicine is selected from Oren-gedoku-to, Sho-saiko-to, Ninjin-to, San'o-shashin-to, Mao-bushi-saishin-to, Anchu-san, Keishi-bukuryo-gan, Byakko-ka-ninjin-to, Shakuyaku-kanzo-to and Sairei-to.

Inventors

UCHIDA TOSHIHIRO

KONISHI SHIN ICHIRO

KIMURA TAKAYOSHI

Latest standardized assignees - inventors removed

TSUMURA

DD210293	A5	1984-06-06	DD-210293				
ES520961	A0	1984-05-16	ES-520961				
ES8404848	A1	1984-05-16	ES8404848				
ZA832104	B	1983-12-28	ZA-832104				
BR8301538	A	1983-12-06	BR8301538				
DK134183	A	1983-11-14	DK8301341				
EP0092908	A2	1983-11-02	EP--92908				
JPS58185648	A	1983-10-29	JP58185648				
AU1277683	A	1983-10-13	AU8312776				
FI831001	L	1983-09-27	FI8301001				
NO831062	L	1983-09-27	NO-831062				
PT76443	A	1983-04-01	PT--76443				
DK134183	D0	1983-03-24	DK8301341				
FI831001	A0	1983-03-24	FI8301001				

Abstract

(EP0092908)

A moldable hydrophilic polymer composition, preferably **gelatin**, for use in the combination of a capsule injection molding device with a microprocessor. The composition has a molecular mass range of 10,000 to 2,000,000 Dalton or a molecular mass range of 10,000 to 2,000,000 and 10,000,000 to 20,000,000 Dalton. The composition has a water content range from 5 to 25% percent by weight.

Inventors

WITTEWER, FRITZ

TOMKA, IVAN

Latest standardized assignees - inventors removed

PFIZER

Family 57/100 - FAMPAT - ©Questel

Title

(US4812561)

Crystalline hydrate of oral cephalosporin and its composition

Images

d	I/I ₀	d	I/I ₀	d	I/I ₀	d	I/I ₀
5.90	12	20.95	100	28.70	17	35.93	08
7.35	08	21.15	70	29.40	27	36.38	24
9.45	92	21.75	25	29.60	11	37.00	07
10.15	21	22.25	49	29.90	16	38.30	26
12.08	46	23.85	62	30.40	19	38.65	10
14.87	30	24.50	39	31.10	53	39.20	15
15.65	14	24.80	16	31.60	23	39.60	21
16.25	13	25.50	34	31.78	34	40.27	15
18.35	24	25.85	66	33.02	28	41.22	22
18.90	71	26.60	16	33.55	23	42.55	08
19.14	77	27.02	59	33.86	17	44.20	09
19.40	60	27.30	35	35.20	16		
20.58	88	28.35	54	35.65	10		

Publication numbers with kind code & date

NL193136	C	1998-12-04	NL-193136
NL193136	B	1998-08-03	NL-193136
KR950005302	B1	1995-05-23	KR950005302
IE59613	B1	1994-03-09	IE--59613
AR243893	A1	1993-09-30	AR-243893
FI89052	C	1993-08-10	FI--89052
RU1829932	C	1993-07-23	RU1829932
SU1829932	A3	1993-07-23	SU1829932
HK47893	A	1993-05-27	HK9300478
FI89052	B	1993-04-30	FI--89052
NO170889	C	1992-12-23	NO-170889
PL159180	B1	1992-11-30	PL-159180
NO170889	B	1992-09-14	NO-170889
IL83059	B	1992-03-29	IL--83059
SE466257	B	1992-01-20	SE-466257
CN1015106	B	1991-12-18	CN1015106B
DK161080	C	1991-11-11	DK-161080C
DK161080	B	1991-05-27	DK-161080
CA1283405	C	1991-04-23	CA1283405
AT392472	B	1991-04-10	AT-392472
ATA165887	A	1990-09-15	AT8701658



FR2601014	B1	1990-09-14	FR2601014				
HU200777	B	1990-08-28	HU-200777				
US4933443	A	1990-06-12	US4933443				
GB2192183	B	1990-05-16	GB2192183				
AU594167	B2	1990-03-01	AU-594167				
BE1001691	A4	1990-02-13	BE1001691				
CH672788	A5	1989-12-29	CH-672788				
IT1211469	B	1989-11-03	IT1211469				
NZ220764	A	1989-09-27	NZ-220764				
ES2008759	A6	1989-08-01	ES2008759				
US4812561	A	1989-03-14	US4812561				
ES2004952	A6	1989-02-16	ES2004952				
PL266567	A1	1988-07-21	PL87266567				
KR880001670	A	1988-04-26	KR19880001670				
CN87105009	A	1988-03-23	CN87105009				
HUT44257	A	1988-02-29	HU-T44257				
NL8701507	A	1988-02-01	NL8701507				
FR2601014	A1	1988-01-08	FR2601014				
AU7504087	A	1988-01-07	AU8775040				
DE3721913	A1	1988-01-07	DE3721913				
GB2192183	A	1988-01-06	GB2192183				
NO872729	L	1988-01-04	NO-872729				
DK336487	A	1988-01-03	DK8703364				
FI872903	A	1988-01-03	FI8702903				
SE8702705	L	1988-01-03	SE8702705				
IE871738	L	1988-01-02	IE8701738				
IL83059	A	1987-12-31	IL--83059				
GR871014	B	1987-11-02	GR-871014				
GB8715064	D0	1987-08-05	GB8715064				
FI872903	A0	1987-07-01	FI8702903				
IT8767566	D0	1987-07-01	IT8767566				
DK336487	D0	1987-06-30	DK8703364				
NO872729	D0	1987-06-30	NO8702729				
SE8702705	D0	1987-06-30	SE8702705				

Abstract

(US4812561)

An antibacterial, 7 beta -[(Z)-2-(2-aminothiazol-4-yl)-4-carboxybut-2-enoylamino]-3-cephem-4-carboxylic acid is stable in a (di or tri)-hydrate crystal form. A pharmacologically effective amount of this hydrate is filled in a **gelatin** hard capsule sealed by a band of **gelatin** to make a stable composition for clinical use after storage for a long time.

Inventors

HAMASHIMA YOSHIO

MINAMI KYOJI

KAWATA KYOZO

SAKAMOTO TERUO

TAKEDA TOYOHICO

SUZUKI YUSUKE

TUJIKAWA MASANORI

Latest standardized assignees - inventors removed

SHIONOGI & COMPANY

Family 58/100 - FAMPAT - ©Questel

Title

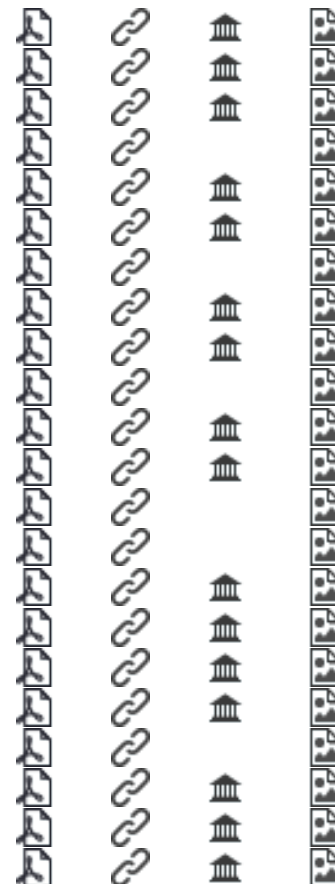
(EP3205338)

Method of **manufacturing** enteric soft capsule**Images**

	果胶 种类	制剂性评价		肠溶性评价	
		外壳液流 动性	粘合性	第一液	第二液
实施例制 品 1	果 胶 -1	◎	○	○	○
实施例制 品 2	果 胶 -2	◎	○	○	○
实施例制 品 3	果 胶 -3	○	○	○	○
实施例制 品 4	果 胶 -4	◎	◎	○	○
比较品	果 胶 -5	△	△	×	—

Publication numbers with kind code & date

CN106456558	B	2019-10-08	CN106456558B
ES2708811	T3	2019-04-11	ES2708811
IN310809	B	2019-04-03	IN-310809
VN0020366	B	2019-01-25	VN--20366B
EP3205338	B1	2018-12-19	EP3205338
CA2960631	C	2018-06-05	CA2960631
KR101862091	B1	2018-05-29	KR101862091
US9962335	B2	2018-05-08	US9962335
EP3205338	A4	2018-03-21	EP3205338
HK1231373	A1	2017-12-22	HK1231373
EP3205338	A1	2017-08-16	EP3205338
US20170209384	A1	2017-07-27	US20170209384
VN52816	A	2017-06-26	VN--52816
SG11201702755T	A	2017-05-30	SG11201702755T
JPWO2016056230	A1	2017-04-27	JP2016056230W
AU2015329446	B2	2017-03-16	AU2015329446
CN106456558	A	2017-02-22	CN106456558
IN201647035515	A	2016-11-25	IN201647035515
KR20160124906	A	2016-10-28	KR20160124906
AU2015329446	A1	2016-10-27	AU2015329446
JP5921017	B1	2016-04-22	JP5921017
CA2960631	A1	2016-04-14	CA2960631



WO2016/056230

A1 2016-04-14

WO201656230

**Abstract**

(EP3205338)

An object is to provide a **method of manufacturing** a soft capsule that is enteric and excellent in formulation properties. An enteric soft capsule is manufactured by the following steps (a) and (b): (a) preparing an enteric capsule shell liquid comprising **gelatin** and low methoxyl pectin having a degree of amidation of 5 to 25%, and (b) encapsulating capsule fills using the enteric capsule shell liquid prepared in the step (a) by stamping. Preferably, the jelly strength of the **gelatin** is 160 to 300 Bloom, the degree of esterification of the low methoxy pectin is 20 to 40%, and the enteric capsule shell liquid comprises 30 to 35 parts by mass of the low methoxy pectin per 100 parts by mass of the **gelatin**.

Inventors

WATANABE KAZUHIKO

HASEGAWA HIROAKI

INABA NAHONORI

SHIMOKAWA YOSHIYUKI

KATO KENJI

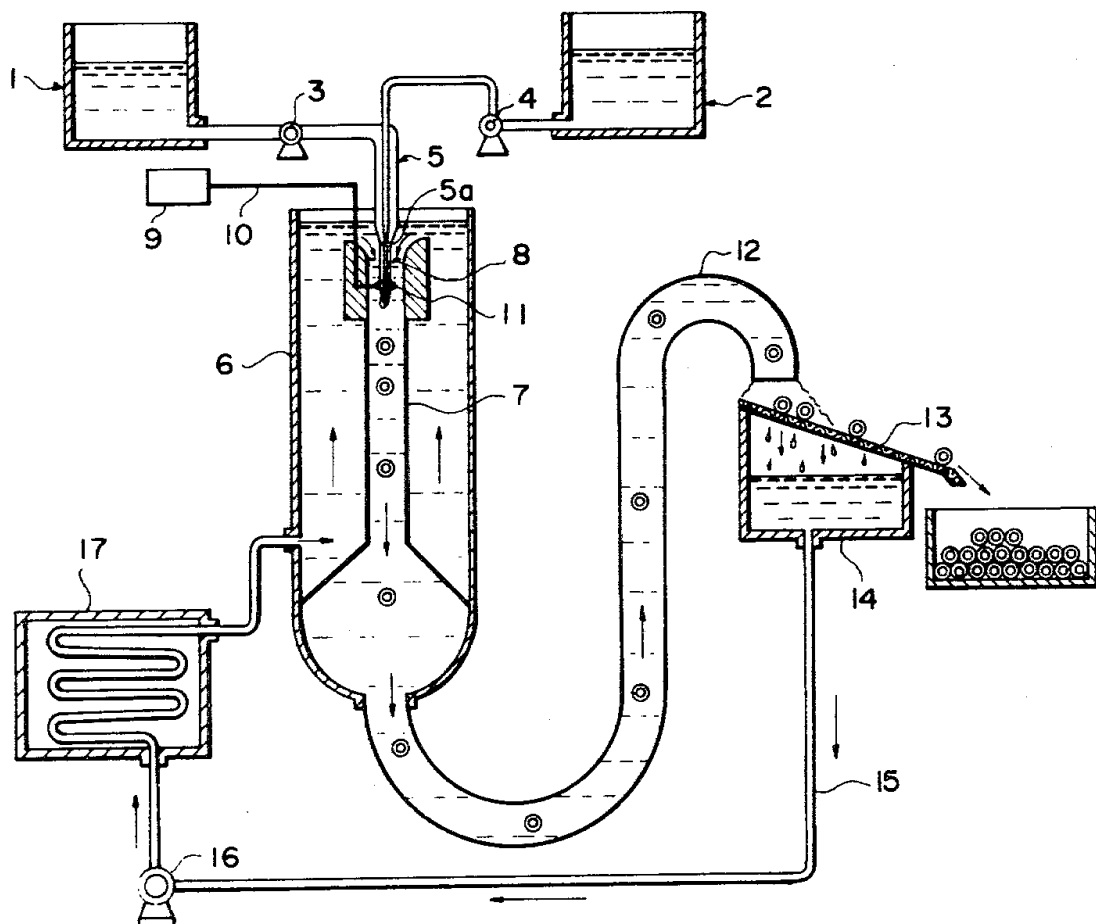
Latest standardized assignees - inventors removed

FUJI CAPSULE

Family 59/100 - FAMPAT - ©Questel

Title

(US4251195)

Apparatus for making miniature **capsules****Images****Publication numbers with kind code & date**

NL180807

C 1987-05-04

NL-180807



NL180807	B	1986-12-01	NL-180807				
IT1125151	B	1986-05-14	IT1125151				
US4426337	A	1984-01-17	US4426337				
FR2336176	B1	1983-07-08	FR2336176				
US4251195	A	1981-02-17	US4251195				
DE2658587	C3	1980-04-30	DE2658587				
DE2658587	B2	1979-08-16	DE2658587				
GB1538510	A	1979-01-17	GB1538510				
JPS52148635	A	1977-12-10	JP52148635				
JPS52148663	A	1977-12-10	JP52148663				
FR2336176	A1	1977-07-22	FR2336176				
DE2658587	A1	1977-07-07	DE2658587				
NL7614193	A	1977-06-28	NL7614193				

Abstract

(US4251195)

Apparatus for making miniature **capsules** having a capsule-forming orifice defined by the open ends of two coaxial conduits. The inner conduit defines a central opening in the orifice and the outer conduit defines an annulus circumferentially of the central opening. Filter-content material for the individual **capsules** is extruded as a stream through the central opening and a settable coating liquid material is extruded as a thin film sleeve circumferentially of the filler-content material stream. The film sleeve and the stream of filler-content material pass through a cooling liquid which is flowed through a fixed nozzle downstream of the extruding orifice. The nozzle has an inlet section with converging inner surfaces and a uniform diameter downstream of the inlet section. The cooling fluid, the film sleeve and filler-content stream therein all pass through the nozzle. A driven annular vibrator is disposed within the nozzle and develops vibrations in the cooling fluid parallel to the direction of the path of travel of the flow to form discrete droplets of the filler-content material enclosed in a film of the settable material. The droplets are recovered as miniature **capsules**.

Inventors

SUZUKI TOSHIYUKI

MATSUMURA KUNIAKI

MAEDA HIROSHI

IMAI AKIRA

KUROKAWA NOBUO

Latest standardized assignees - inventors removed

MORISHITA JINTAN

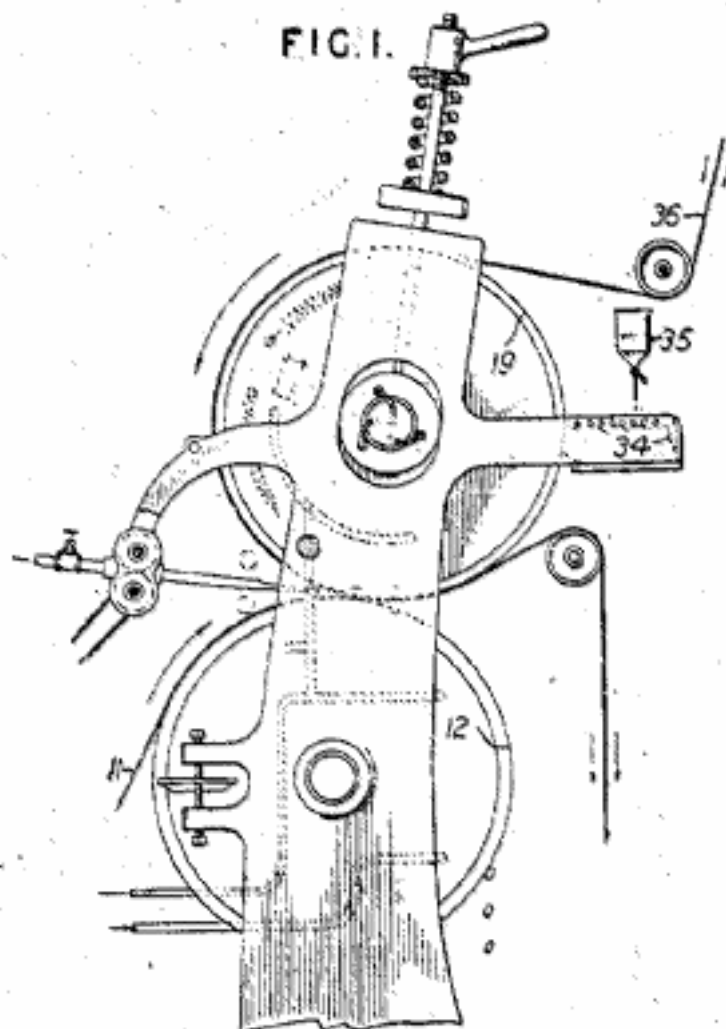
Family 60/100 - FAMPAT - ©Questel

Title

(GB-733223)

Improvements in or relating to the manufacture of soft **gelatin capsules**

Images

**Publication numbers with kind code & date**

GB733223

A

1955-07-06

GB-733223

**Abstract**

(GB733223)

733,223. Making filled capsules. AMERICAN CYANAMID CO. Nov. 13, 1951 [Dec. 5, 1950], No. 26542/51. Class 94 (1). [Also in Group V] In a method of making soft gelatin capsules by compressing superimposed gelatin strips 11, 36 between a cavities die roll 12 and a seal roll 19, a thin layer of a volatile petroleum fraction is interposed between the seal roll and the gelatin strip, this layer preventing adhesion between the seal roll and the strip 36. It is stated that an oil has previously been used for this purpose. As shown, kerosene is dropped from a container 35 on to a pad 34 which wipes the kerosene on to the surface of the seal roll. A suitable kind of kerosene is described, viz., "Deo-base", which is free from kerosene odour. Specifications 695,665, [Group V], and 733,244 are referred to.

Latest standardized assignees - inventors removed

AMERICAN CYANAMID

Family 61/100 - FAMPAT - ©Questel

Title

(EP2285214)

Rasagiline soft gelatin capsules

Images

Title

(CN104095826)

Preparation **method** of natural vitamin E soft **capsules****Publication numbers with kind code & date**

CN104095826	B	2016-08-10	CN104095826B
CN104095826	A	2014-10-15	CN104095826

**Abstract**

(CN104095826)

The invention discloses a preparation **method** of natural vitamin E soft **capsules**. The **method** includes following steps: (1) material obtaining; (2) material weighing and preparing; (3) **gelatin** melting; (4) material proportioning; (5) a capsule-pressing process; (6) a drying process; (7) a capsule-picking process; (8) a polishing process; (9) a re-drying process; (10) an internally packaging process; and (11) an externally packaging process. According to the preparation **method** of the natural vitamin E soft **capsules**, two drying processes are carried out in the preparation **method**, wherein the first drying process is carried out after the capsule-pressing process to form the **capsules** and the further drying process is carried out after the polishing process so that the **capsules** are uniform in size and gloss and are high in rate of finished products and waste is reduced.

Inventors

CHEN BIN

CHEN GUOJING

ZHU XU

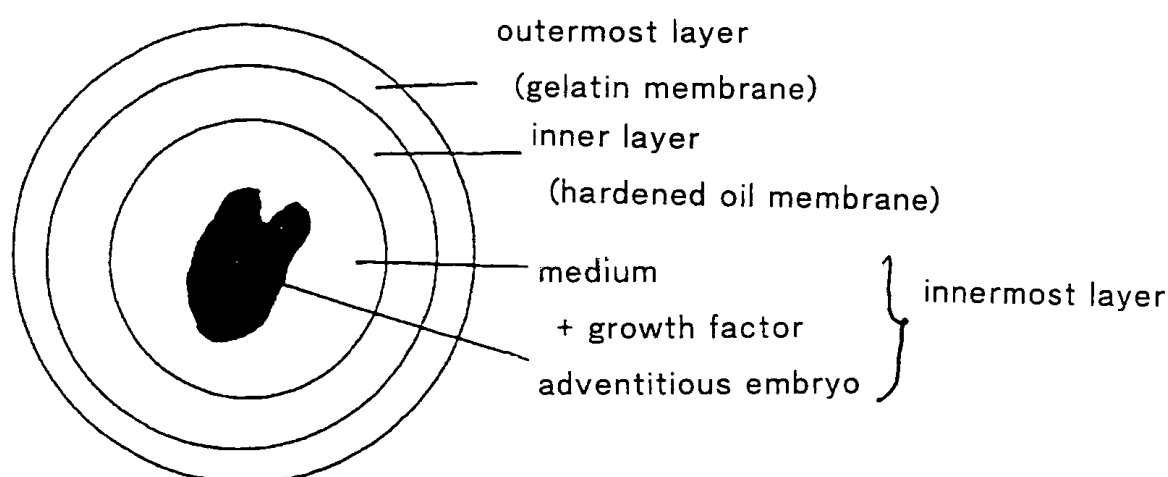
Latest standardized assignees - inventors removed

XUANCHENG BAIWEILI BIOLOGICAL ENGINEERING

Family 63/100 - FAMPAT - ©Questel

Title

(EP1407678)

Capsules containing vital cells or tissues**Images****Publication numbers with kind code & date**

ES2546537	T3	2015-09-24	ES2546537
EP1407678	B1	2015-08-12	EP1407678
EP2279659	B1	2015-04-15	EP2279659
US8859853	B2	2014-10-14	US8859853



CA2450211	C	2011-03-22	CA2450211				
EP2279659	A3	2011-02-23	EP2279659				
EP2279659	A2	2011-02-02	EP2279659				
CN1522113	B	2010-05-26	CN1522113B				
KR100853115	B1	2008-08-21	KR100853115				
KR100814625	B1	2008-03-18	KR100814625				
KR20070092768	A	2007-09-13	KR20070092768				
EP1407678	A4	2006-05-10	EP1407678				
US6982095	B2	2006-01-03	US6982095				
US20050283849	A1	2005-12-22	US20050283849				
US20040175412	A1	2004-09-09	US20040175412				
CN1522113	A	2004-08-18	CN1522113				
EP1407678	A1	2004-04-14	EP1407678				
KR20040014584	A	2004-02-14	KR20040014584				
CA2450211	A1	2003-01-09	CA2450211				
WO03/001927	A1	2003-01-09	WO200301927				

Abstract

(EP1407678)

Capsules which contain vital cells or tissues as the contents and in which these cells or tissues can be grown. Since these cells or tissues can be grown in the **capsules**, an extremely high cell density can be achieved. By using these **capsules**, foods having an excellent effect of ameliorating intestinal disorders, etc. can be provided. Moreover, it is possible to provide artificial seeds showing an excellent storage stability and a high germination ratio which comprise seamless soft **capsules** consisting of an innermost layer containing indefinite embryo, indefinite shoots, multiple shoots, shoot apexes, growing points, protocorm-like bodies, indefinite roots, hairy roots, etc., an inner coating layer comprising a hardened oil and an outer coating layer made of a biodegradable film comprising **gelatin**, polysaccharides, etc.

Inventors

ASADA MASANORI

HATANO YUMI

KAMAGUCHI RYOSEI

SUNOHARA HIDEKI

Latest standardized assignees - inventors removed

MORISHITA JINTAN

Family 64/100 - FAMPAT - ©Questel

Title

(WO201084601)

Powdery fat-containing soft **capsules** to be masticated**Images**

<咀嚼用ソフトカプセル皮膜処方>							
	比較例	比較例	本発明	本発明	本発明	本発明	本発明
	1	2	1	2	3	4	5
ゼラチン	100	100	100	100	100	100	100
グリセリン	100	100	100	100	100	100	100
油脂	0	10	0	0	0	0	0
粉末油脂	0	0	2.5	5	10	15	20
RO水	70	70	70	70	70	70	70
※各数値の単位は重量部である。							

KR101420483	B1	2014-07-16	KR101420483
JP4958054	B2	2012-03-30	JP4958054
KR20110116017	A	2011-10-24	KR20110116017
JPWO2010084601	A1	2010-07-29	JP2010084601W
WO2010/084601	A1	2010-07-29	WO201084601

**Abstract**

(WO2010/084601)

Disclosed are soft **capsules** having been widely used in "drugs", "foods for specific health uses", "so-called health foods" and foods which have soft and excellent mastication properties and a high meltability in the oral cavity, impart a mild and full-bodied taste to a **gelatin** film coating, show an excellent ability to regulate the stickiness of the capsule film coating to thereby prevent sticking of the **capsules** to each other or to a container, and further inhibit an increase in the moisture content of the **gelatin** film coating even under highly humid conditions and so on. Soft **capsules** to be masticated characterized in that a **gelatin** film coating for the soft **capsules** to be masticated is formed by blending a powdery fat with **gelatin**, a plasticizer and water.

Inventors

ISHIKAWA NOBUYUKI

KAJIMA KOJI

YAMADA YASUNORI

Latest standardized assignees - inventors removed

SANKYO

Family 65/100 - FAMPAT - ©Questel

Title

(EP1105108)

Non-**gelatin** substitutes for oral delivery **capsules**, their composition and process of manufacture**Publication numbers with kind code & date**

DE69934695	T2	2007-11-15	DE69934695
CA2341024	C	2007-04-03	CA2341024
DE69934695	D1	2007-02-15	DE69934695
AT350020	T	2007-01-15	ATE350020
EP1105108	B1	2007-01-03	EP1105108
EP1105108	A4	2004-04-07	EP1105108
MXPA01001691	A	2003-06-06	MXPA01001691
EP1105108	A1	2001-06-13	EP1105108
US6214376	B1	2001-04-10	US6214376
AU5901999	A	2000-03-14	AU9959019
CA2341024	A1	2000-03-02	CA2341024
WO00/10538	A1	2000-03-02	WO200010538

**Abstract**

(EP1105108)

Gelatin-free capsule for use in oral administration of medicines, cosmetic or bath applications, or dietary supplements can be prepared from compositions comprising: a) 8-50 % by weight of water-dispersible or water-soluble plasticizer, b) 0.5 to 12 % by weight kappa -carrageenan, c) 0 to 60 % dextrins, and d) 1 % to 95 % by weight water, with the kappa -carrageenan comprising at least 50 % by weight of all gums forming or contributing to formation of thermoreversible gels in the composition. A capsule for oral administration or cosmetic application may comprise a fill material to be administered to a patient or subject and a capsule, the capsule comprising an aqueous based film comprising: a) water-dispersible or water-soluble plasticizer, and b) carrageenan, with the carrageenan comprising at least 50 % or 75 % by weight of kappa -carrageenan, and the carrageenan comprising at least 50 % or 75 % by weight of all gums which form or contribute to the formation of thermoreversible gels. A process for forming the **capsules** may comprise heating the composition, casting or extruding the composition into a film, gelling the composition by cooling, associating a fill material with the gelled

composition (usually as a film) and sealing the film about the fill material.

Inventors

GENNADIOS ARISTIPPOS

Latest standardized assignees - inventors removed

PATHEON SOFTGELS

BANNER PHARMACAPS

Family 66/100 - FAMPAT - ©Questel

Title

(EP1131037)

Process for the manufacture of liquid filled capsules

Images

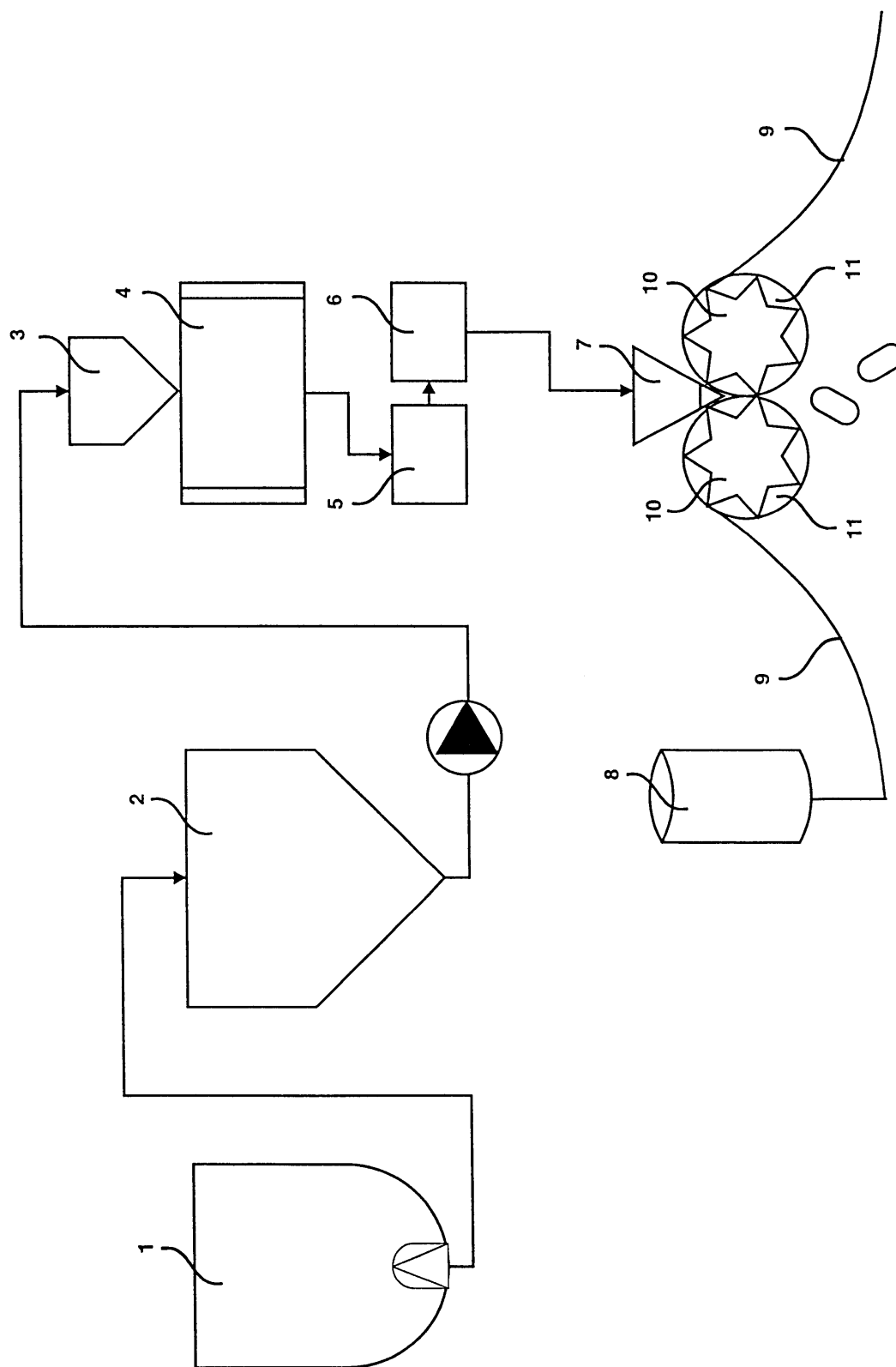


Fig. 1 a

Publication numbers with kind code & date

BR9915444	B1	2013-10-22	BR9915444
HU226498	B1	2009-03-02	HU-226498
CZ299800	B6	2008-11-26	CZ-299800
IN222554	B	2008-11-21	IN-222554
IL143119	B	2007-05-15	IL-143119
HU0104464	A3	2006-06-28	HU200104464
CA2350943	C	2006-06-20	CA2350943
PL190382	B1	2005-12-30	PL-190382
DE69919889	T2	2005-09-15	DE69919889



MY120081	A	2005-08-30	MY-120081				
ES2228141	T3	2005-04-01	ES2228141				
HK1042227	A1	2005-03-18	HK1042227				
HK1042227	B	2005-03-18	HK1042227				
IN0675/CHENP/2001	A	2005-03-04	IN2001CN00675				
DK1131037	T3	2005-01-10	DK1131037T				
PT1131037	E	2004-12-31	PT1131037				
SI1131037	T1	2004-12-31	SI1131037T				
MA26761	A1	2004-12-20	MA--26761				
JP3623166	B2	2004-12-03	JP3623166				
CN1172649	C	2004-10-27	CN1172649C				
TWI221767	B	2004-10-11	TWI221767				
DE69919889	D1	2004-10-07	DE69919889				
AT274895	T	2004-09-15	ATE274895				
EP1131037	B1	2004-09-01	EP1131037				
KR100446118	B1	2004-08-30	KR100446118				
YU33001	A	2004-05-12	YU200100330				
RU2219911	C2	2003-12-27	RU2219911				
NZ511663	A	2003-08-29	NZ-511663				
JP2002529200	A	2002-09-10	JP2002529200				
AU751446	B2	2002-08-15	AU-751446				
ZA200103891	B	2002-08-14	ZA200103891				
HRP20010341	A2	2002-06-30	HRP20010341				
PL348350	A1	2002-05-20	PL99348350				
CO5150161	A1	2002-04-29	CO5150161A1				
IL143119	A	2002-04-21	IL-143119				
HU0104464	A2	2002-03-28	HU200104464				
AR020013	A1	2002-03-27	AR--20013				
US6352717	B2	2002-03-05	US6352717				
US20020006417	A1	2002-01-17	US20020006417				
TR200101358	T2	2001-12-21	TR200101358				
CN1326335	A	2001-12-12	CN1326335				
ID30128	A	2001-11-08	ID--30128				
EP1131037	A1	2001-09-12	EP1131037				
CZ20011644	A3	2001-08-15	CZ200101644				
KR20010075711	A	2001-08-09	KR20010075711				
BR9915444	A	2001-08-07	BR9915444				
NO20012384	A	2001-05-15	NO200102384				
NO20012384	D0	2001-05-15	NO200102384				
NO20012384	L	2001-05-15	NO20012384				
PE20001240	A1	2000-11-14	PE124002000				
UY25803	A1	2000-08-21	UY--25803				
AU1775100	A	2000-06-05	AU200017751				
CA2350943	A1	2000-05-25	CA2350943				
WO00/28942	A1	2000-05-25	WO200028942				

Abstract

(EP1131037)

The present invention relates to a process for encapsulating a shear sensitive fill mass into a capsule, characterised in that said fill mass is heated and subsequently cooled, immediately prior to the encapsulation. The invention relates also to the capsules obtainable by the said process. The process according to the present invention enables to obtain capsules showing high and constant dissolution rates. The amount of active agent intake can be therefore reduced since the active

agent itself is rapidly dissolved. The overall costs of the medicament are thereby also reduced. The high homogeneity (and therefore the high and constant dissolution rate) of the capsules produced with the process according to the present invention guarantees a reproducible bioavailability and therapeutic effect of the active agent which is contained in it.

Inventors

ALEX RAINER

GERHARDS JUERGEN

KRAEMER-PITTROF INGEBORG

OESCHGER RICHARD

RADES THOMAS

Latest standardized assignees - inventors removed

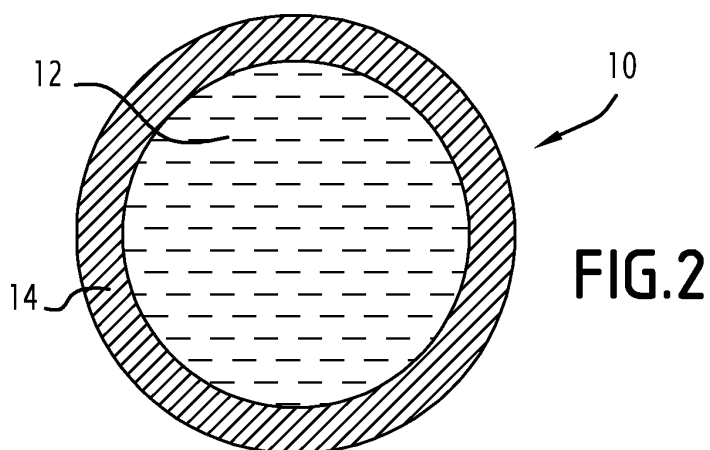
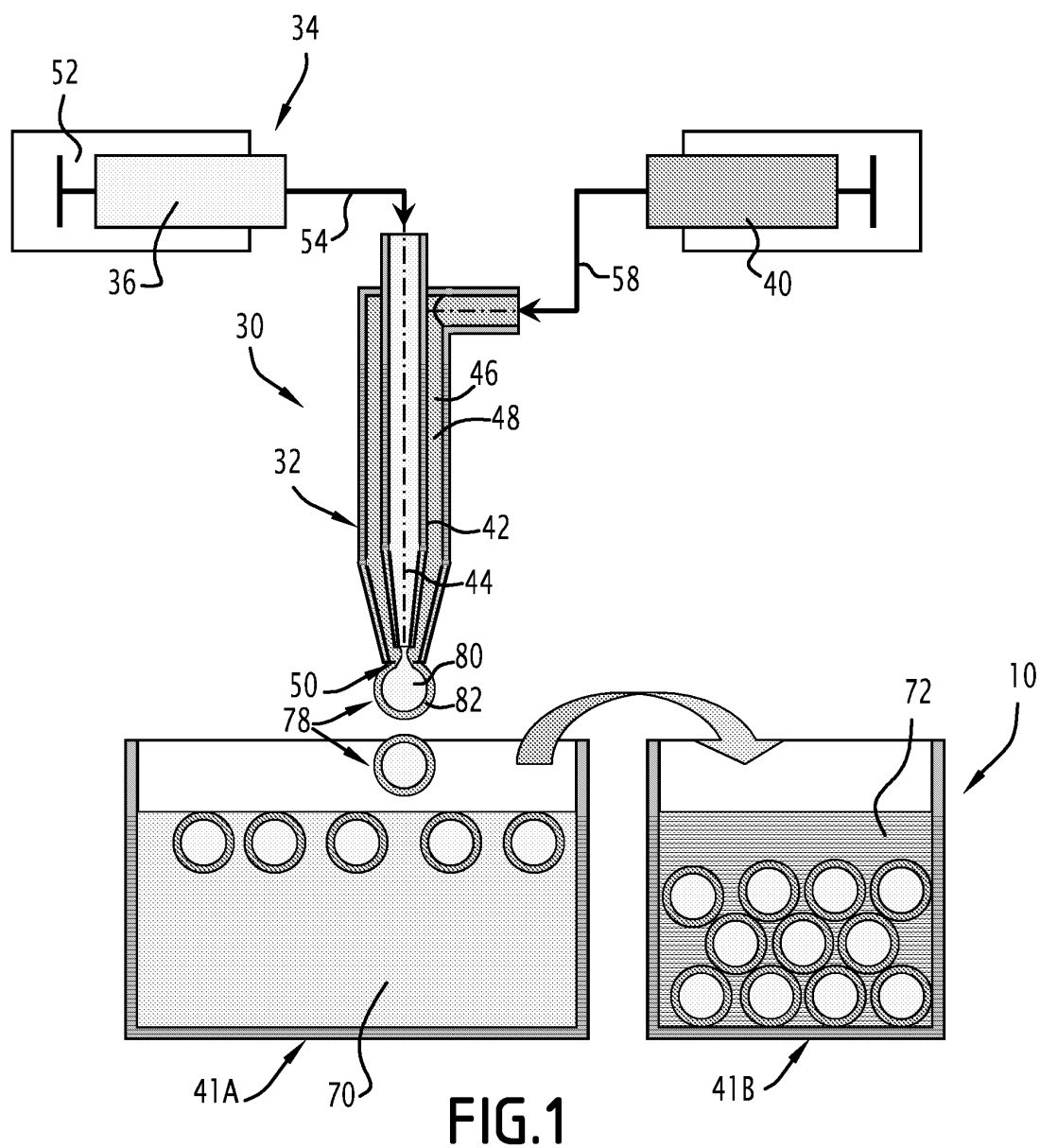
HOFFMANN LA ROCHE

Family 67/100 - FAMPAT - ©Questel

Title

(EP2370066)

Method for manufacturing capsule series, and related capsule series**Images**



Publication numbers with kind code & date

EP2370066	B1	2016-03-30	EP2370066
US9277759	B2	2016-03-08	US9277759
BRPI0916506	A2	2015-11-10	BR200916506
FR2939012	B1	2015-03-27	FR2939012



CN102300564	B	2014-12-10	CN102300564B				
US20120003285	A1	2012-01-05	US20120003285				
CN102300564	A	2011-12-28	CN102300564				
EP2370066	A1	2011-10-05	EP2370066				
WO2010/063937	A1	2010-06-10	WO201063937				
FR2939012	A1	2010-06-04	FR2939012				

Abstract

(EP2370066)

The invention relates to a **method** that includes separately conveying a first liquid solution (36) containing the first material and a second liquid solution (46) containing a liquid polyelectrolyte. The **method** includes forming of a series of drops (78) at the outlet (50), each drop (78) including a central core (80) formed from a first solution (36) and a peripheral film (82) formed from a second solution. The **method** includes immersing each drop (78) in a gelling solution (70) containing a reagent capable of reacting with the polyelectrolyte of the film (82) so as to form the gelled casing. The second solution (40) contains at least one surfactant before the former contacts the first solution (36).

Inventors

BIBETTE JÉRÔME

CHU LIANG-YIN

SANTANACH CARRERAS ENRIC

ROYERE AUDREY

BREMOND NICOLAS

Latest standardized assignees - inventors removed

CAPSUM

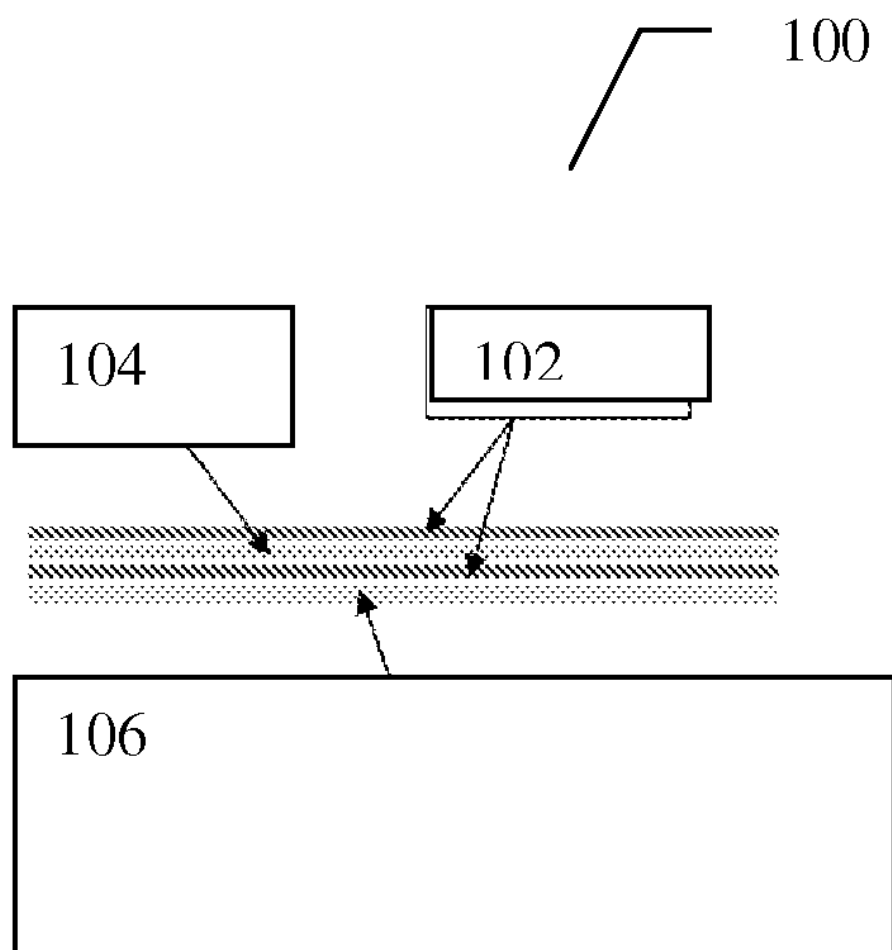
Family 68/100 - FAMPAT - ©Questel

Title

(EP2111239)

Gelatin-transglutaminase hemostatic dressings and sealants**Images**

Figure 1

**Publication numbers with kind code & date**

EP2586467	B1	2018-05-02	EP2586467
US9655988	B2	2017-05-23	US9655988
US9636433	B2	2017-05-02	US9636433
JP5993571	B2	2016-08-26	JP5993571
CN103933606	B	2016-08-24	CN103933606B
CA2836067	C	2016-02-09	CA2836067
CN105079871	A	2015-11-25	CN105079871
US20150273103	A1	2015-10-01	US20150273103
CN102552967	B	2015-08-12	CN102552967B
US20150196683	A1	2015-07-16	US20150196683
US9017664	B2	2015-04-28	US9017664
EP2455109	B1	2015-02-11	EP2455109
HK1148488	A1	2015-01-30	HK1148488
KR101428122	B1	2014-08-07	KR101428122
CN103933606	A	2014-07-23	CN103933606
JP5581056	B2	2014-07-18	JP5581056
CN101854960	B	2014-06-25	CN101854960B
US8722039	B2	2014-05-13	US8722039



CA2672651	C	2014-03-11	CA2672651				
EP2586467	A3	2013-07-17	EP2586467				
AU2007334394	B2	2013-06-06	AU2007334394				
EP2586467	A2	2013-05-01	EP2586467				
EP2111239	B1	2013-03-06	EP2111239				
RU2464015	C2	2012-10-20	RU2464015				
US20120226211	A1	2012-09-06	US20120226211				
IL199357	B	2012-08-30	IL-199357				
CN102552967	A	2012-07-11	CN102552967				
JP2012110724	A	2012-06-14	JP2012110724				
EP2455109	A3	2012-06-13	EP2455109				
EP2455109	A2	2012-05-23	EP2455109				
IN4478/DELNP/2009	A	2012-04-27	IN2009DN04478				
BRPI0718328	A2	2011-10-11	BR200718328				
RU2009122941	A	2011-01-20	RU2009122941				
CN101854960	A	2010-10-06	CN101854960				
JP2010521994	A	2010-07-01	JP2010521994				
US20100063459	A1	2010-03-11	US20100063459				
MX2009006369	A	2010-02-24	MX2009006369				
WO2008/076407	A3	2010-01-28	WO200876407				
EP2111239	A2	2009-10-28	EP2111239				
KR20090095647	A	2009-09-09	KR20090095647				
AU2007334394	A1	2008-06-26	AU2007334394				
CA2672651	A1	2008-06-26	CA2672651				
CA2836067	A1	2008-06-26	CA2836067				
WO2008/076407	A2	2008-06-26	WO200876407				

Abstract

(EP2111239)

An adhesive material for medical use comprising **gelatin** and a non-toxic cross-linking material such as transglutaminase. An optional embodiment of the invention includes dressings in which a layer of a transglutaminase is sandwiched between a first and second layer of **gelatin**. The hemostatic products are useful for the treatment of wounded tissue.

Inventors

PREISS-BLOOM ORAHN

ATTAR ISHAY

IRAM NATALIE

Latest standardized assignees - inventors removed

BARD SHANNON

Family 69/100 - FAMPAT - ©Questel

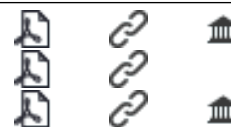
Title

(US3619842)

Method articles and compositions of matter containing large **capsules****Publication numbers with kind code & date**

FR2041112	B1	1974-03-15	FR2041112			
DK124559	B	1972-10-30	DK-124559			
US3619842	A	1971-11-16	US3619842			
AU1244970	A	1971-09-16	AU7012449			
GB1239189	A	1971-07-14	GB1239189			
FR2041112	A	1971-01-29	FR2041112			
FR2041112	A1	1971-01-29	FR2041112			
CH499610	A	1970-11-30	CH-499610			

DE2014257	A1	1970-10-08	DE2014257
NL7004637	A	1970-10-05	NL7004637
BE748284	A	1970-09-16	BE-748284

**Abstract**

(US3619842)

1,239,189. Coatings. NATIONAL CASH REGISTER CO. 9 March, 1970 [1 April, 1969], No. 11067/70. Heading B2E. A substrate carrying pressure-rupturable polymer **capsules** is obtained by applying a thixotropic aqueous mixture, of Brookfield viscosity 500-50,000 c.p.s. at 25% C. and which includes 5-50% by weight of **capsules**, 0.1-10% -by weight of gel-forming hydrophilic polymeric material and drying. The gel-forming material may be methyl cellulose, carboxymethyl cellulose, carboxyethyl cellulose, natural oxidized starches, pectin, casein, wood cellulose derivatives, cationic and anionic polyacrylamides, mono- and polyacrylates, natural gums, such as karaya gum, and **gelatin** partially hardened by aldehydic crosslinking agents to the extent such that gel formation is not readily reversible with water at 25-40°C. Binder material may be present, such as water-soluble polyacrylates and methacrylates and lower alkyl-substituted acrylates and methacrylates, natural and synthetic water-dispersable elastomeric latex materials, such as butadiene-styrene elastomers and butadiene-acrylonitrile elastomers. Colouring agents, dyes, pigments and fillers such as comminuted cellulosic fibre, ground cork, pumice, silicon carbide, reprocessed polyurethanes, sponge rubber or leather dust may be present. The **capsules** may contain dry cleaning solvents, detergent solutions of these, lubricants, metal cleaners, insect repellants, shoe polish, windshield defrosting compositions, paint removers and other cleaners, and cosmetics. The support may be of paper such as paper towelling, foamed plastics sheets such as opencelled poly (vinylchloride), foamed rubber, and polystyrene sheets, plastics films and sheets, such as natural and synthetic rubbers, polyolefines; polyethylene, polypropylene, ethylene-polypropylene copolymers, poly (vinylidene chloride), polycarbonates, polyesters, polyurethane sheets and films woven and non-woven fabrics, metal foils and composites of these having two or more components laminated or otherwise secured together, such as paper backed with plastic in the form of barrier films. The substrate may be rigid or flexible.

(From GB1239189 A)

Inventors

MAIERSON THEODORE

Latest standardized assignees - inventors removed

NCR

Family 70/100 - FAMPAT - ©Questel

Title

(EP2289494)

Polysaccharide **capsules** and methods of preparation**Images**

胶囊	制造商/批	AVR (微米)	%RSD	重量%膜
实施例 12	FMC	161	2.5	16
实施例 17	FMC	61	5.3	5.7
实施例 22	FMC	157	7.2	16
明胶	Triomega® Pronova Biocare, 215741A	452	16.2	32
明胶, 肠溶的	Mintec™, Monmouth Pharmaceuticals Ltd, UK BN95822EC/1	526	13.9	39
明胶	Moller's Dobbel, Peter Moller, Norway L93468	514	12.3	36
明胶	Triomega Kids®, Pronova Biocare, 421014/1 TD3057	559	11.7	35

Publication numbers with kind code & date

IN272575	B	2016-04-15	IN-272575
NO336461	B1	2015-08-31	NO-336461
BRPI0308866	B1	2015-06-23	BR200308866
US9017720	B2	2015-04-28	US9017720
ES2397924	T3	2013-03-12	ES2397924
EP1990045	B1	2013-01-02	EP1990045
KR101203334	B1	2012-11-20	KR101203334
KR101120280	B1	2012-03-06	KR101120280
US20110195101	A1	2011-08-11	US20110195101
JP4790220	B2	2011-07-29	JP4790220
US7972620	B2	2011-07-05	US7972620
EP2289494	A1	2011-03-02	EP2289494
EP2289495	A1	2011-03-02	EP2289495
IL164357	B	2010-12-30	IL-164357
JP2010285447	A	2010-12-24	JP2010285447
KR20100123780	A	2010-11-24	KR20100123780
CN1655769	B	2010-05-26	CN1655769B
IN3016/DELNP/2004	A	2009-10-02	IN2004DN03016
ES2312761	T3	2009-03-01	ES2312761
EP1990045	A1	2008-11-12	EP1990045
DE60323357	D1	2008-10-16	DE60323357
AT406875	T	2008-09-15	ATE406875
EP1496871	B1	2008-09-03	EP1496871
IL164357	A	2005-12-18	IL-164357
JP2005526819	A	2005-09-08	JP2005526819
CN1655769	A	2005-08-17	CN1655769
US20050106233	A1	2005-05-19	US20050106233



KR20050025151	A	2005-03-11	KR20050025151				
EP1496871	A1	2005-01-19	EP1496871				
BR0308866	A	2005-01-04	BR200308866				
NO20044739	L	2004-11-02	NO20044739				
AU2003219623	A1	2003-10-20	AU2003219623				
WO03/084516	A1	2003-10-16	WO200384516				
NO20021592	D0	2002-04-04	NO200201592				

Abstract

(EP2289494)

The present invention is directed to seamless **capsules** and methods for making seamless **capsules** having a high oil content. They are made from a process involving the steps of: (a) preparing an emulsion comprising oil, water, an emulsifier, and at least one of a water-soluble monovalent metal salt, polyvalent metal salt, and an acid, wherein said oil is present in an amount of at least 50% by weight of said emulsion; with the proviso that said emulsion does not contain marmelo mucilage; and (b) adding portions of said emulsion to an aqueous gelling bath comprised of at least one ionic polysaccharide, thereby encapsulating said portions of said emulsion in a polysaccharide gel membrane, and optionally (c) drying the resulting **capsules** by removing water. The capsule is, for example, an alginate gel. The **capsules** of the invention are suitable for a variety of applications, e.g. pharmaceutical, nutraceutical, veterinary, agricultural, cosmetic, or food applications.

Inventors

ANDERSEN PEDER OSCAR

GASEROED OLAV

LARSEN CHRISTIAN KLEIN

Latest standardized assignees - inventors removed

FMC BIOPLOYMER

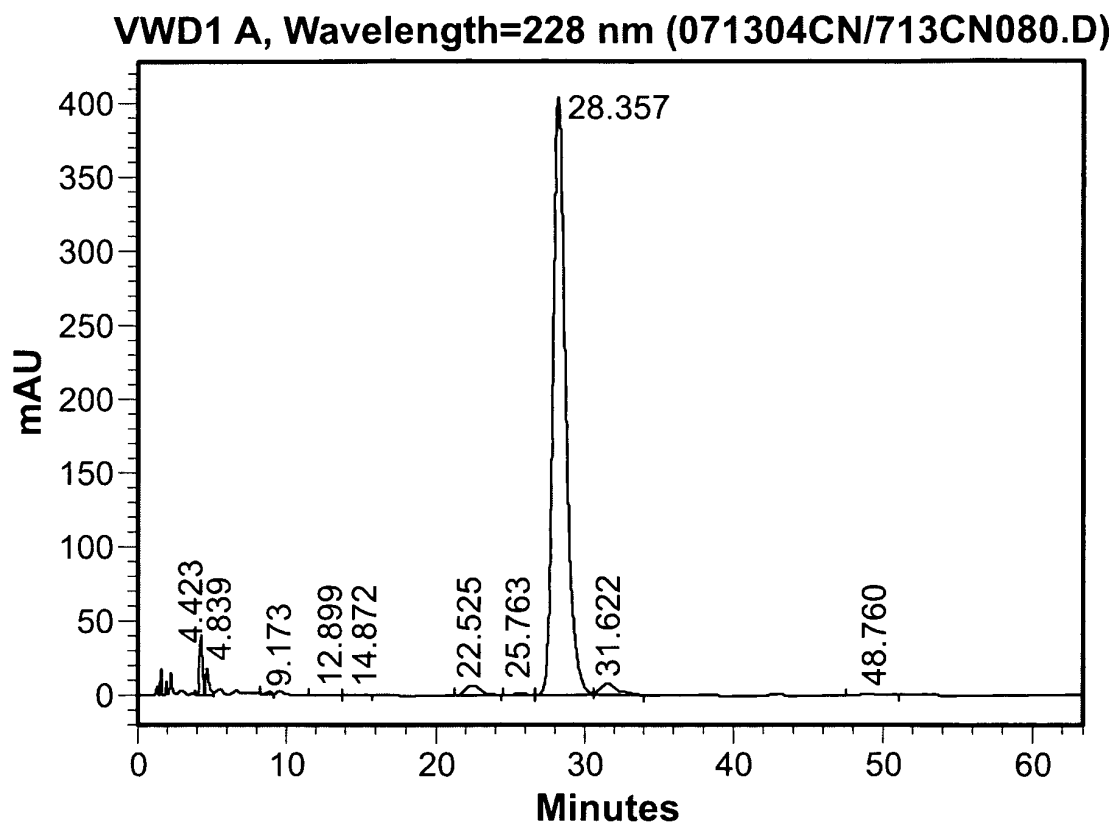
Family 71/100 - FAMPAT - ©Questel

Title

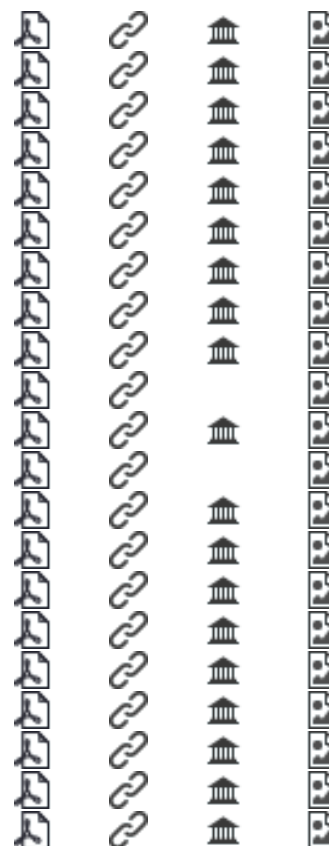
(EP1827393)

Room-temperature stable dronabinol formulations

Images

**FIG. 1****Publication numbers with kind code & date**

US8628796	B2	2014-01-14	US8628796
JP5153341	B2	2012-12-14	JP5153341
CA2589993	C	2012-07-03	CA2589993
EP1827393	A4	2012-04-18	EP1827393
NZ555701	A	2011-05-27	NZ-555701
IL205892	A	2010-11-30	IL-205892
AU2005314021	B2	2010-02-11	AU2005314021
JP2008523078	A	2008-07-03	JP2008523078
EA200701246	A1	2008-06-30	EA200701246
MX2007007038	A	2008-03-07	MX2007007038
CN101132781	A	2008-02-27	CN101132781
KR20070118069	A	2007-12-13	KR20070118069
IL183815	A	2007-09-20	IL-183815
EP1827393	A2	2007-09-05	EP1827393
IN4456/DELNP/2007	A	2007-08-24	IN2007DN04456
WO2006/063109	A3	2007-02-22	WO200663109
US20060160888	A1	2006-07-20	US20060160888
WO2006/063109	A9	2006-07-20	WO200663109
AU2005314021	A1	2006-06-15	AU2005314021
CA2589993	A1	2006-06-15	CA2589993
WO2006/063109	A2	2006-06-15	WO200663109

**Abstract**

(EP1827393)

A room temperature stable cannabinoid formulation is disclosed. In preferred embodiments, the cannabinoid formulation is dronabinol in an oil-based carrier contained within a hard **gelatin** capsule.

Inventors

KOTTAYIL GEORGE S

ZHU ZHONGYUAN

GOSKONDA VENKAT R

Latest standardized assignees - inventors removed

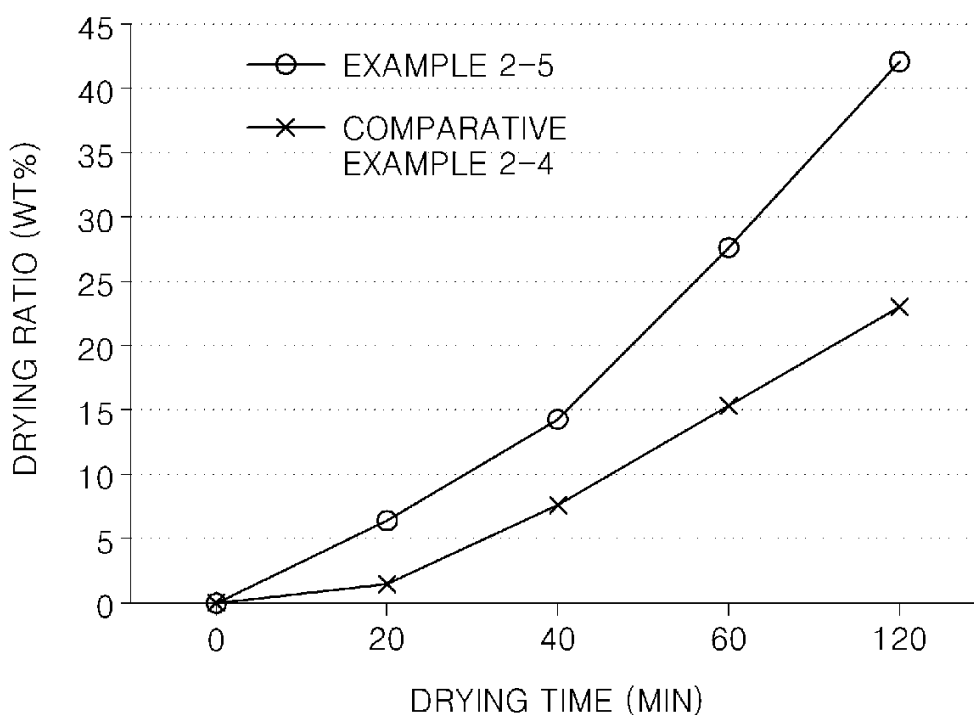
FRESH CUT DEVELOPMENT

Family 72/100 - FAMPAT - ©Questel

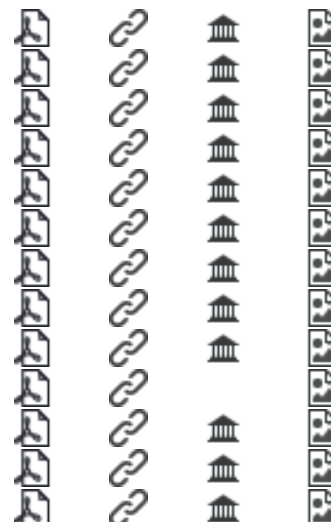
Title

(EP2875808)

Aqueous composition for preparing hard capsule, preparation method therefor, hard capsule, and method for recycling hard capsule scraps

Images**FIG. 1****Publication numbers with kind code & date**

IN318996	B	2019-08-26	IN-318996
TWI634910	B	2018-09-11	TWI634910
JP6227646	B2	2017-11-08	JP6227646
EP2875808	A4	2016-03-23	EP2875808
JP2015524425	A	2015-08-24	JP2015524425
US20150197655	A1	2015-07-16	US20150197655
IN427DEN2015	A	2015-06-19	IN2015DN00427
EP2875808	A1	2015-05-27	EP2875808
CN104487058	A	2015-04-01	CN104487058
AR091862	A1	2015-03-04	AR--91862
TW201404410	A	2014-02-01	TW201404410
CA2879723	A1	2014-01-30	CA2879723
WO2014/017756	A1	2014-01-30	WO201417756



(EP2875808)

Disclosed are an aqueous composition for preparing a hard capsule, a preparation **method** therefor, a hard capsule, and a **method** for recycling hard capsule scraps. The disclosed aqueous composition for preparing a hard capsule comprises a water-soluble cellulose ether, an alcohol, and water. In addition, the **method** for recycling hard capsule scraps comprises the step of dissolving hard capsule scraps comprising a water-soluble cellulose ether into a mixture solution comprising water and an alcohol so as to prepare an aqueous composition for preparing a recycled hard capsule.

SON JIN RYUL

LEE SANG YOUB

JEON JYUNG HEE

BANG SUNG HWAN

SHIN JU HEE

Latest standardized assignees - inventors removed

LOTTE FINE CHEMICAL

Family 73/100 - FAMPAT - ©Ouestel

Title

(EP-152292)

Acetaminophen gelatin capsules

Publication numbers with kind code & date

JP7013012	B2	1995-02-15	JP95013012			
EP0152292	A3	1987-03-04	EP-152292			
JPS61501202	A	1986-06-19	JP61501202			
NL8520012	A	1986-01-02	NL8520012			
KR19857000213	A	1985-12-26	KR19857000213			
KR850700213	A	1985-12-26	KR19850700213			
DK456485	A	1985-10-07	DK8504564			
DK456485	D0	1985-10-07	DK8504564			
FI853861	A	1985-10-04	FI8503861			
FI853861	A0	1985-10-04	FI8503861			
ZA85211	B	1985-08-28	ZA--85211			
AU3880185	A	1985-08-27	AU8538801			
EP0152292	A2	1985-08-21	EP-152292			
WO85/03439	A1	1985-08-15	WO8503439			

Abstract

(EP0152292)

A **gelatin** capsule for oral administration comprises a **gelatin** shell substantially encapsulating a physiologically compatible fill material, the fill material comprising an effective dosage amount of acetaminophen, a vehicle for the acetaminophen, a surfactant and a modifier for the vehicle, characterised in that:- (a) the vehicle comprises a low molecular weight polyethylene glycol having an average molecular weight of from about 400 to 1000 and a higher molecular weight polyethylene glycol having an average molecular weight of from about 1000 to about 10000, the acetaminophen being substantially evenly distributed through the vehicle; (b) the surfactant is of a type that is physiologically soluble and is in solution in the vehicle; and (c) the viscosity modifier is present in an amount equal to or greater than the amount necessary to gel the vehicle.

Inventors

ROGERS, GARNELL A., JR.

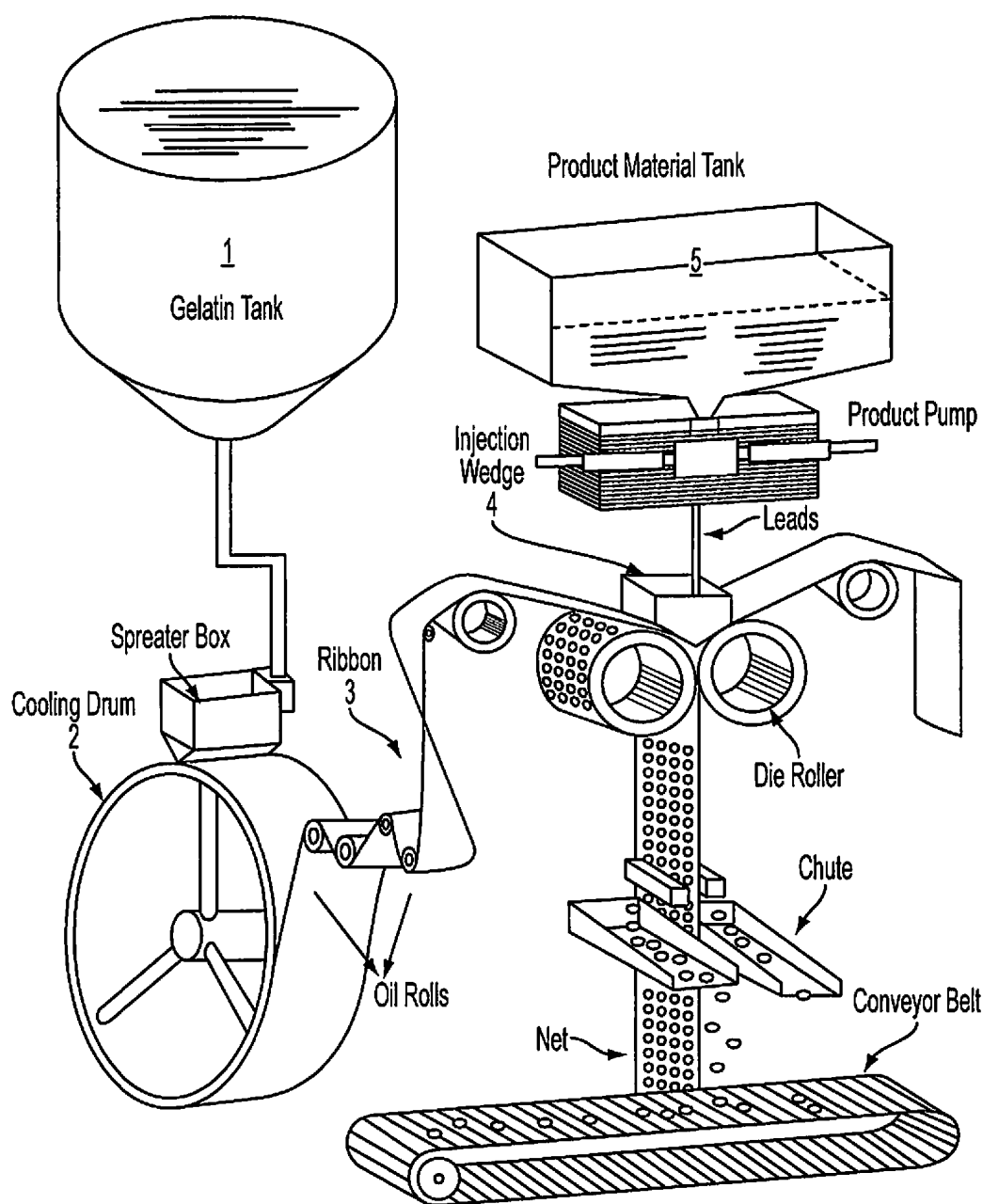
Latest standardized assignees - inventors removed

R P SCHERER

Family 74/100 - FAMPAT - ©Questel

Title

(US9456991)

Gelatin/alginate delayed release **capsules** comprising omega-3 fatty acids, and methods and uses thereof**Images****Publication numbers with kind code & date**[US9456991](#)

B2 2016-10-04

US9456991

[US20150004226](#)

A1 2015-01-01

US20150004226

**Abstract**

(US20150004226)

The present disclosure relates to delayed release **capsules** and methods of **manufacturing** the **capsules**. The **capsules** comprise a capsule shell comprising a combination of **gelatin** and alginate, wherein the capsule shell encapsulates or is filled with at least one agent, and the delayed release **capsules** are chosen from soft **capsules** and hard **capsules**.

Inventors

BAES ERIK KAREL

WOLD IDA MARIE

GB2141993	B	1985-08-07	GB2141993				
GB2087829	B	1985-07-31	GB2087829				
GB2141993	A	1985-01-09	GB2141993				
GB2141094	A	1984-12-12	GB2141094				
GB2140384	A	1984-11-28	GB2140384				
GB8416174	D0	1984-08-01	GB8416174				
GB8416175	D0	1984-08-01	GB8416175				
GB8416176	D0	1984-08-01	GB8416176				
DE3146337	A1	1982-08-12	DE3146337				
GB2087829	A	1982-06-03	GB2087829				

Abstract

(US4567714)

Apparatus and **method** for forming sealed pharmaceutical **capsules** containing precisely compacted charges of a powdered material. A pair of substantially cylindrical sealing rolls are arranged in nipping relationship for directing a pair of webs of **gelatin** material along predetermined paths between the nip of the sealing rolls. For each sealing roll there is provided a powder supply hopper which contains a supply of powdered material and a cylindrical roll rotatably mounted adjacent the supply hopper. The cylindrical roll has chambers extending radially inwardly from the surface thereof for receiving therewith powdered material as the cylindrical roll rotates past the supply hopper. A compaction mechanism is associated with each cylindrical roll for compacting the predetermined charge of powdered material in the chambers so as to form a compacted slug. A transfer roll associated with each cylindrical roll is provided intermediate the cylindrical roll and its respective sealing roll for transferring the compacted slugs of material to cavities formed in the web as the sealing roll feeds the web along its predetermined path toward the nip between the pair of sealing rolls, the transfer rolls being provided with means for collecting free and uncompacted powdered material and dust to minimize the depositing of dust and free powdered material onto the web.

Inventors

CHASMAN SYDNEY A

Latest standardized assignees - inventors removed

CHASMAN SYDNEY ALEXANDER

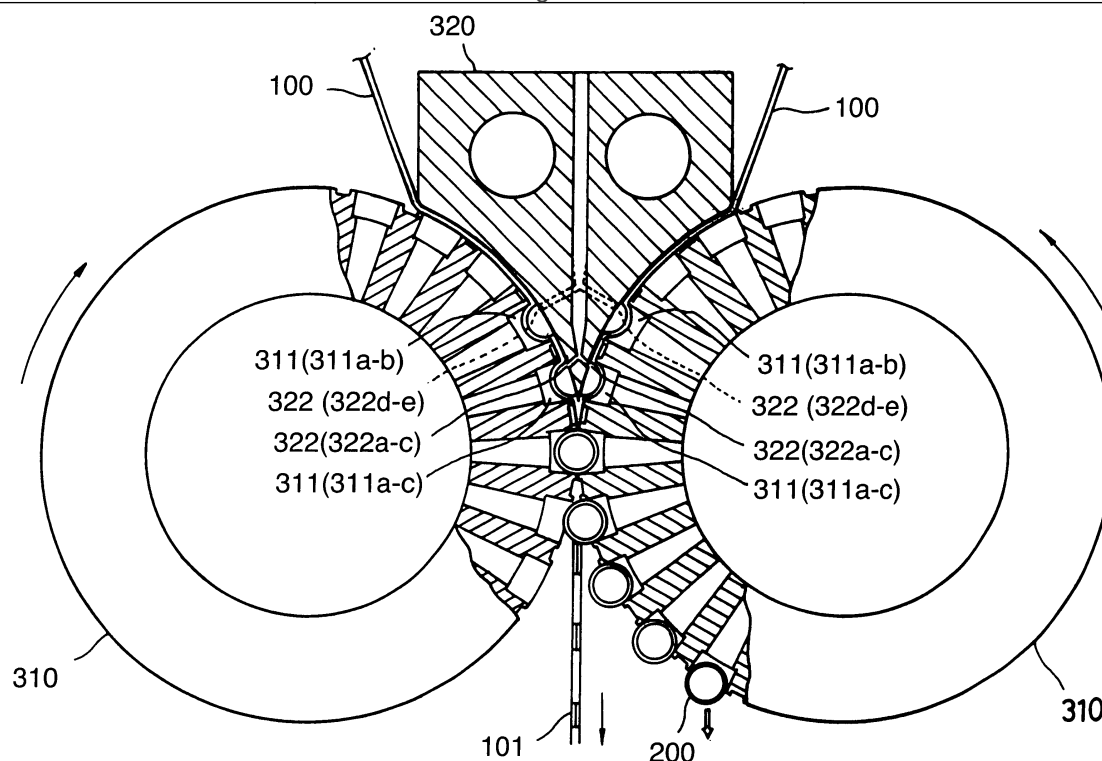
Family 77/100 - FAMPAT - ©Questel

Title

(US6295793)

Die rolls of a soft capsule **manufacturing** apparatus and a **method** of **manufacturing** soft **capsules** using the same

Images



Publication numbers with kind code & date

US6295793

B1 2001-10-02

US6295793

JP11221268

A 1999-08-17

JP11221268



Abstract

(US6295793)

An apparatus and **method** for **manufacturing** soft **capsules** wherein a filling material, such as liquid medicine, is encapsulated by two **gelatin** sheets. The soft capsule **manufacturing** apparatus includes a pair of **die** rolls that are close to and confront each other, each **die** roll having capsule pockets in a plurality of rows, and a nozzle segment having an inverse projection for supplying a filling material. The inverse projection has curved faces that are positioned in opposing relation with each other at right and left sides about the lower end central portion thereof the curved faces have nozzle holes. The inverse projection confronts a curved recess that is surrounded by curved peripheral surfaces of the **die** rolls at the upper sides thereof. The **gelatin** sheets are supplied between the **die** rolls from the upper portion thereof to receive the filling material therein corresponding to the capsule pockets of each **die** roll to manufacture soft **capsules**. The nozzle holes are arranged on the curved faces in a plurality of rows corresponding to the capsule pockets provided on the **die** rolls in a plurality of rows. With this arrangement, when the pump is actuated one time, the filling material is supplied from the nozzle holes arranged in a plurality of rows to the capsule pockets arranged in a plurality of rows, leading to an increase in the production of **capsules**.

Inventors

TAKAYANAGI TETSUO

Latest standardized assignees - inventors removed

KAMATA

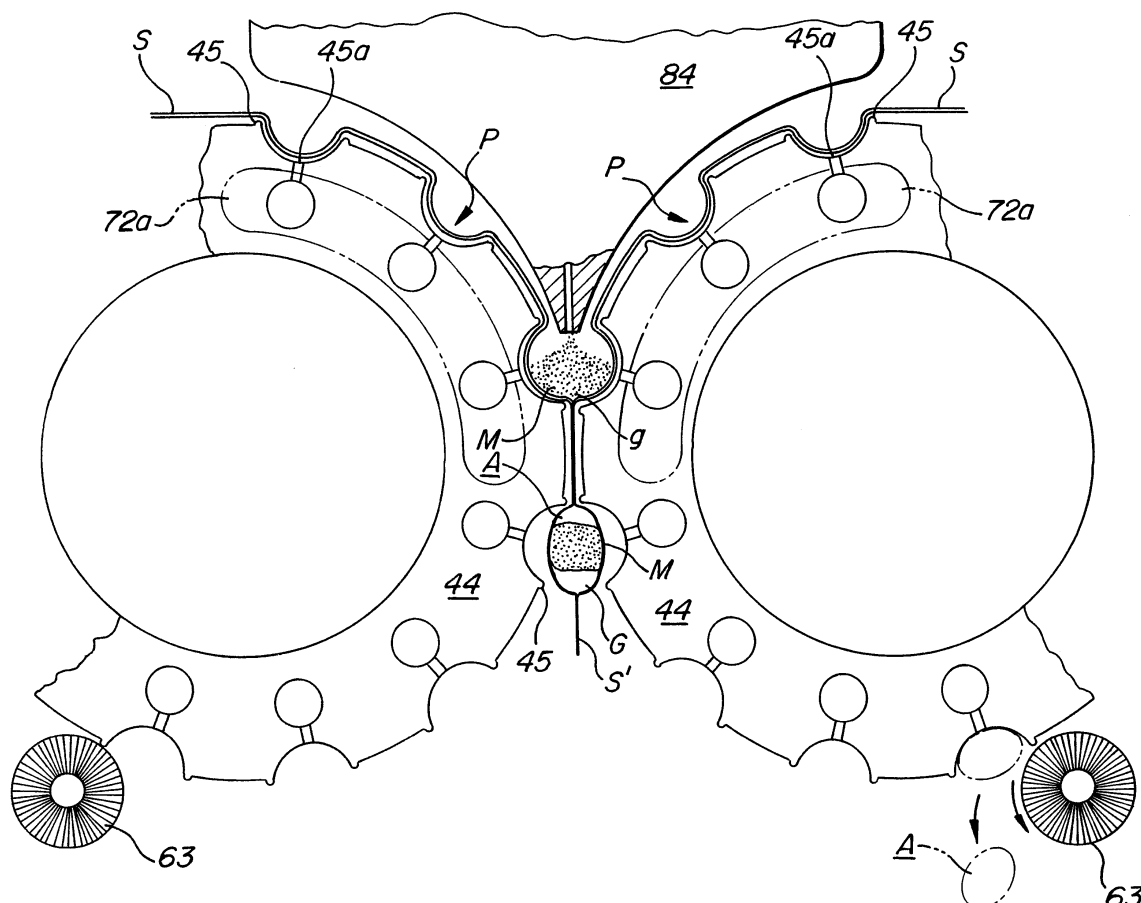
Family 78/100 - FAMPAT - ©Questel

Title

(US6238616)

Method of **manufacturing gelatin** capsule containing powder or time release pellets

Images



Publication numbers with kind code & date

US6402496

B2 2002-06-11

US6402496

US20010006689

A1 2001-07-05

US20010006689

US6238616

B1 2001-05-29

US6238616



Abstract

(US6238616)

A **manufacturing method** for forming **gelatin capsules** comprising:supplying two **gelatin** sheets having preformed pockets between **die** rollers;partially suturing the **gelatin** sheets together by means of the **die** rollers to form a pocket;weighing powder or particulate capsule content in a weighing hole aligned with said pocket;utilizing a pusher to push said capsule content through said weighing hole and into the pocket; andcompleting the suturing of the **gelatin** sheets by means of the **die** rollers to envelop said capsule content in said pocket.

Inventors

ISHIKAWA TOSHIMITSU

WADA NOBUYUKI

LUKAS STEPHEN RICHARD

Latest standardized assignees - inventors removed

TIMECAPS

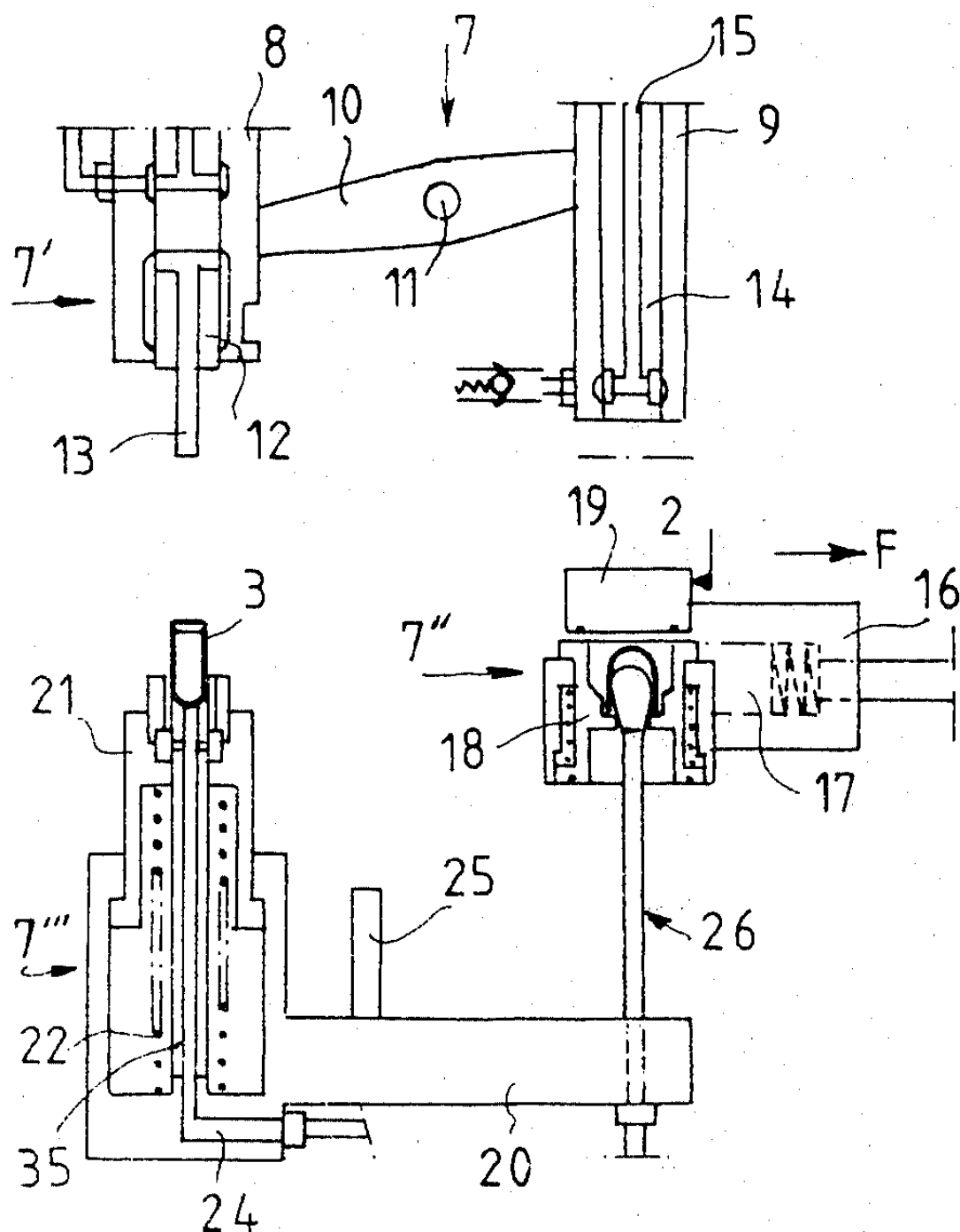
Family 79/100 - FAMPAT - ©Questel

Title

(US4403461)

Device for sealing hard **gelatin capsules** and for packing a liquid product dose in the thus sealed capsule

Images



Publication numbers with kind code & date

IT1168104	B	1987-05-20	IT1168104
GB2070553	B	1984-04-04	GB2070553
US4403461	A	1983-09-13	US4403461
DE3107627	A1	1982-01-21	DE3107627
GB2070553	A	1981-09-09	GB2070553
IT8120038	D0	1981-02-27	IT8120038



Abstract

(US4403461)

According to this process, after separating the cap and the body of the capsule, a bead of viscous adhesive is deposited inside this cap and at a certain distance from the edge thereof, and there is introduced into the body of the capsule the dose of product to be packed, then the body thus filled is fitted into the cap thus prepared. In a preferred embodiment of the process, before fitting the body of the capsule into the cap thereof and during this fitting together, the atmosphere bathing the inside and the outside of the capsule is given a predetermined composition.

Inventors

GOUTARD RENE-MICHEL

PIRY PIERRE

Latest standardized assignees - inventors removed

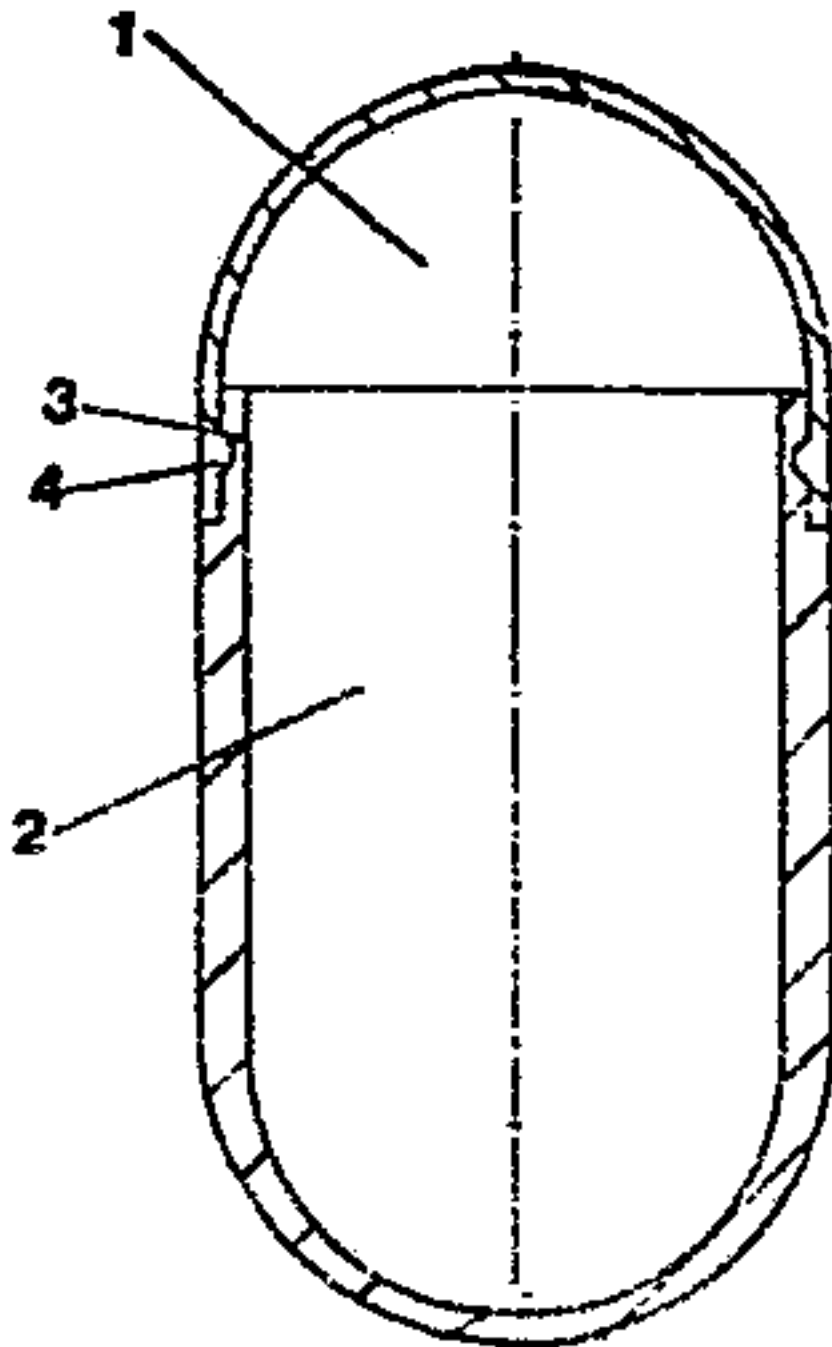
AUTOMATISME & TECHNIQUE

LABORATOIRES SOPHARTEX

Family 80/100 - FAMPAT - ©Questel

Title

(FR2555972)

Capsules and other articles moulded under pressure, which can be used in particular for the pharmaceutical applications**Images****Publication numbers with kind code & date**[DE3438235](#)

C2 1994-04-28

DE3438235



JPH0561942	B2	1993-09-07	JP93061942				
CH664938	A5	1988-04-15	CH-664938				
IT1178161	B	1987-09-09	IT1178161				
GB2148235	B	1987-07-08	GB2148235				
FR2555972	B1	1987-01-02	FR2555972				
JPS60222060	A	1985-11-06	JP60222060				
FR2555972	A1	1985-06-07	FR2555972				
DE3438235	A1	1985-05-30	DE3438235				
GB2148235	A	1985-05-30	GB2148235				
GB8426387	D0	1984-11-21	GB8426387				
IT8449041	D0	1984-10-19	IT8449041				

Abstract

(FR2555972)

A **die** pressure moulded article is made from a hydrophilic polymer, a mixture of such polymers, a starch, a starch derivative, or mixtures thereof. The articles may be injection moulded **capsules** having a joinable cap part (1) and body part (2). The cap part (1) may be **die**-moulded as a stopper directly onto the open end of the body part (2) after the body has been filled so as to seal the contents (3). Alternatively, each of the cap part (1) and body part (2) may have, in the side wall area, adjacent to its open end, at least one locking means (4). <IMAGE>

(From GB2148235 A)

Inventors

WITTWER FRITZ

RAIBLE THOMAS

Latest standardized assignees - inventors removed

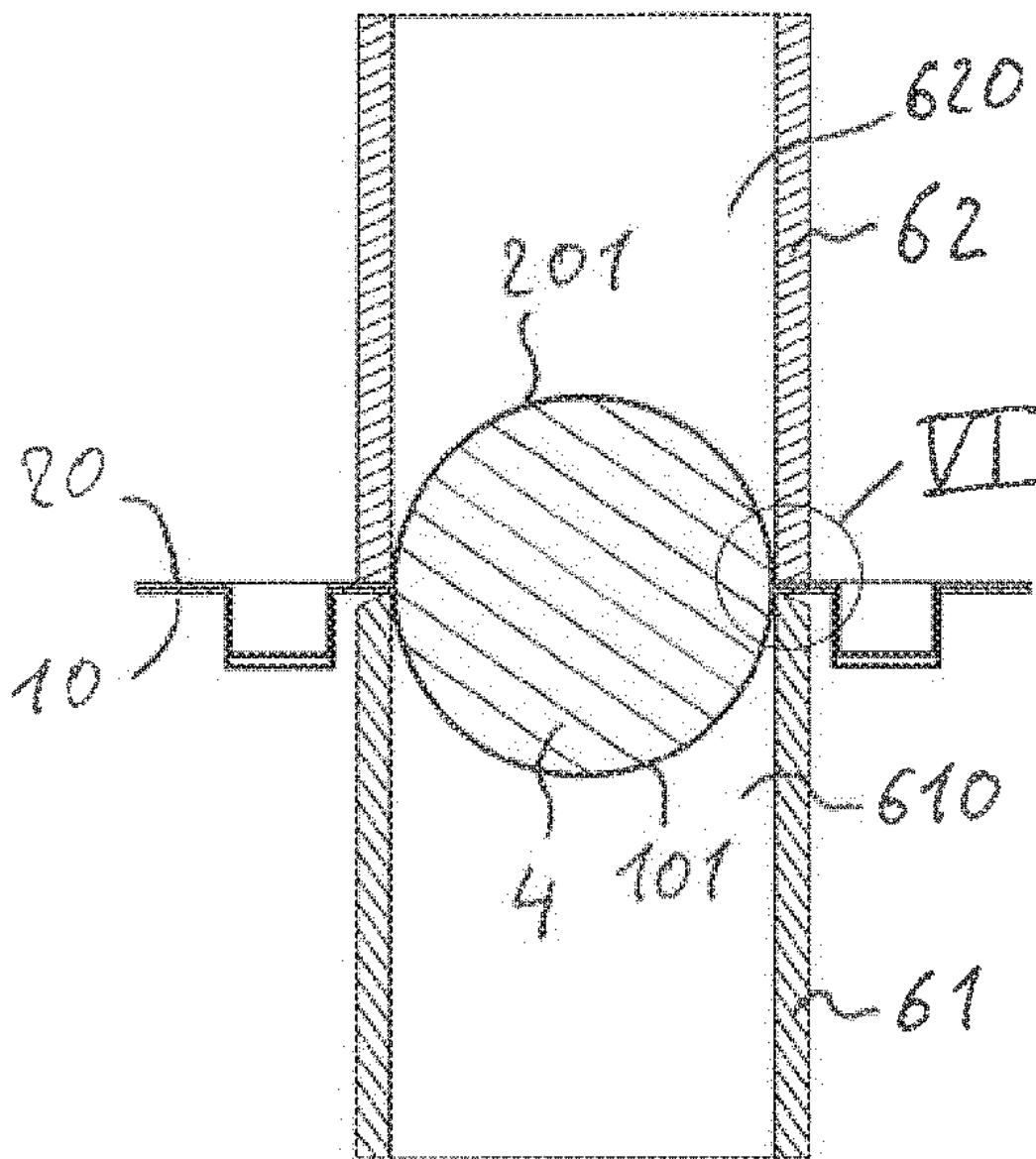
PARKE DAVIS

Family 81/100 - FAMPAT - ©Questel

Title

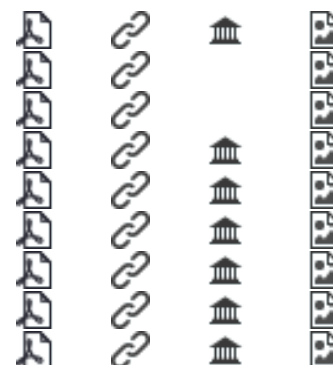
(EP3114037)

Method for the manufacture of **capsules****Images**



Publication numbers with kind code & date

EP3114037	B1	2020-04-22	EP3114037
RU2016139296	A3	2018-10-22	RU2016139296
RU2016139296	A	2018-04-09	RU2016139296
US20170217609	A1	2017-08-03	US20170217609
EP3114037	A1	2017-01-11	EP3114037
FR3018268	B1	2016-03-11	FR3018268
CA2941513	A1	2015-09-11	CA2941513
FR3018268	A1	2015-09-11	FR3018268
WO2015/132390	A1	2015-09-11	WO2015132390



Abstract

(EP3114037)

A **method** for the manufacture of **capsules** comprises the following steps: a) preparation of capsule elements (10, 20) formed from thermoplastic film, at least one element (10) comprising a cavity (101), each element (10, 20) being provided with a peripheral ring (102, 202), b) the bringing-together of the elements so that the rings (102, 202) become superposed, c) placement for placing the set of the two elements (10, 20) between a sonotrode (62) and an anvil (61) comprising a striking surface (611) surrounding an anvil recess (610), the sonotrode (62) comprising a working surface (621) surrounding a sonotrode recess (620), the striking and working surfaces (611, 621) being designed to come into contact

with one another over a working zone of width (l) of between 0.05 and 1 mm; d) welding by operating the sonotrode (62) using ultrasound aimed toward the anvil (61).

Inventors

DELHAYE DAVID

Latest standardized assignees - inventors removed

MELCHIOR MATERIAL & LIFE SCIENCE

Family 82/100 - FAMPAT - ©Questel

Title

(WO200107016)

Process for the production of soft **capsules** and coating materials and lubricants to be used therefor

Publication numbers with kind code & date

JP3726570	B2	2005-10-07	JP3726570
JP2001039863	A	2001-02-13	JP2001039863
WO01/07016	A1	2001-02-01	WO200107016

**Abstract**

(WO01/07016)

Soft **capsules** or coated soft **capsules** which are inhibited from blocking even under the conditions of high temperature and humidity can be produced by incorporating a hemicellulose into the **gelatin** to be used as the main component of the **capsules** or the **gelatin**-base coating material or lubricant to be applied to the surfaces of the **capsules**.

Inventors

NAKAMURA AKIHIRO

SATO YOKO

MAEDA HIROKAZU

Latest standardized assignees - inventors removed

FUJI OIL

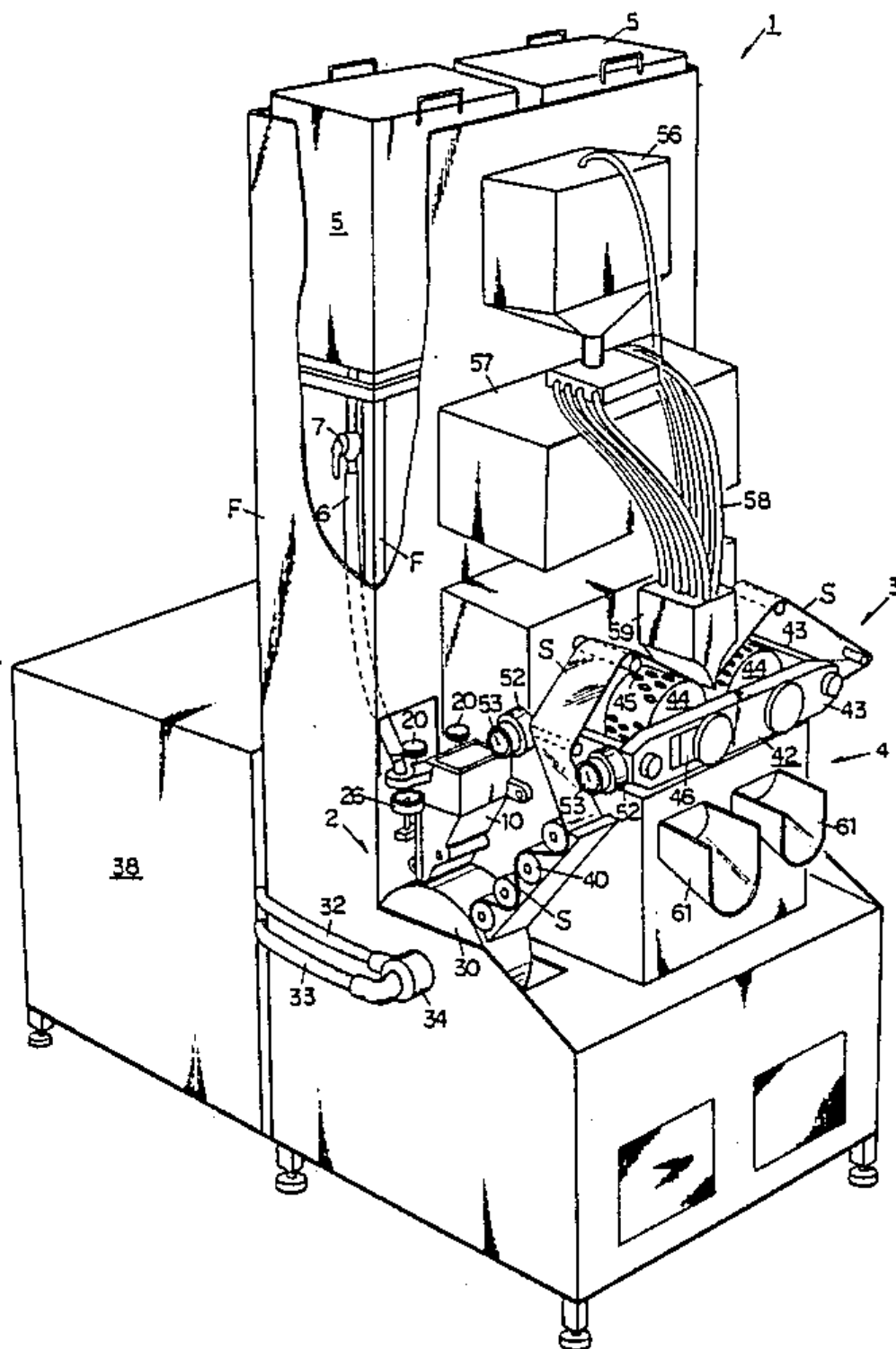
Family 83/100 - FAMPAT - ©Questel

Title

(US4817367)

Apparatus for **manufacturing gelatin** capsule and **method** therefor

Images



Publication numbers with kind code & date

US4817367

A 1989-04-04

US4817367



Abstract

(US4817367)

Apparatus for manufacturing gelatin capsules and method therefor are provided. The apparatus comprises a gelatin sheet forming mechanism which includes a rotatable cooling drum, a gelatin capsule forming mechanism which includes a pair of die rolls and a gelatin capsule recovery mechanism. The inner space of the cooling drum is provided with a coolant. The thickness of the gelatin sheet and the gap between the die rolls are numerically indicated respectively. The driving mechanism for the gelatin capsule recovery mechanism is independent from the other driving mechanism provided in the apparatus.

Inventors

ISHIKAWA TOSHIMITSU

TAMURA KATSUhide

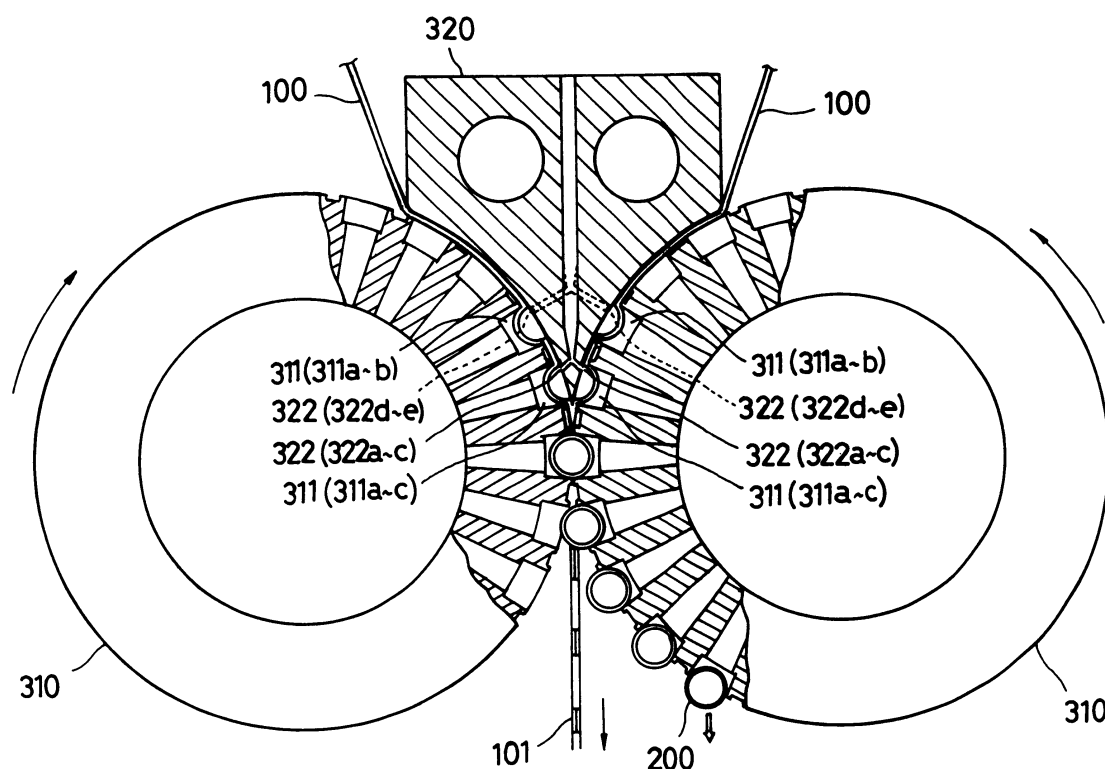
Latest standardized assignees - inventors removed

SANKYO

Family 84/100 - FAMPAT - ©Questel

Title

(US6260332)

Apparatus for and **method** of **manufacturing** soft **capsules****Images****Publication numbers with kind code & date**

US6260332	B1	2001-07-17	US6260332
JP11221267	A	1999-08-17	JP11221267

**Abstract**

(US6260332)

An apparatus for and a **method** of **manufacturing** soft **capsules** wherein a filling material such as liquid medicine is encapsulated by two pieces of **gelatin** sheet are provided. The soft capsule **manufacturing** apparatus comprises a pair of **die** rolls that are close to and confront each other, each **die** roll having capsule pockets in a plurality of rows, and a nozzle segment having an inverse mountain-like projection for supplying a filling material, wherein the inverse mountain-like projection has curved faces that are positioned in confronting relation with each other at right and left sides about the lower end central portion thereof, have nozzle holes, wherein the inverse mountain-like projection confronts a curved recess that is surrounded by curved peripheral surfaces of the **die** rolls at the upper sides thereof, and wherein two **gelatin** sheets are supplied between the **die** rolls from the upper portion thereof to receive the filling material therein corresponding to the capsule pockets of each **die** roll to manufacture soft **capsules**, and wherein the nozzle holes are arranged on the curved faces in a plurality of rows corresponding to the capsule pockets provided on the **die** rolls in a plurality of rows. With this arrangement, when the pump is actuated one time, the filling material is supplied at a time from the nozzle holes arranged in a plurality of rows to the capsule pockets arranged in a plurality of rows, leading to remarkable increase of the production of the capsule pockets.

Inventors

TAKAYANAGI TETSUO

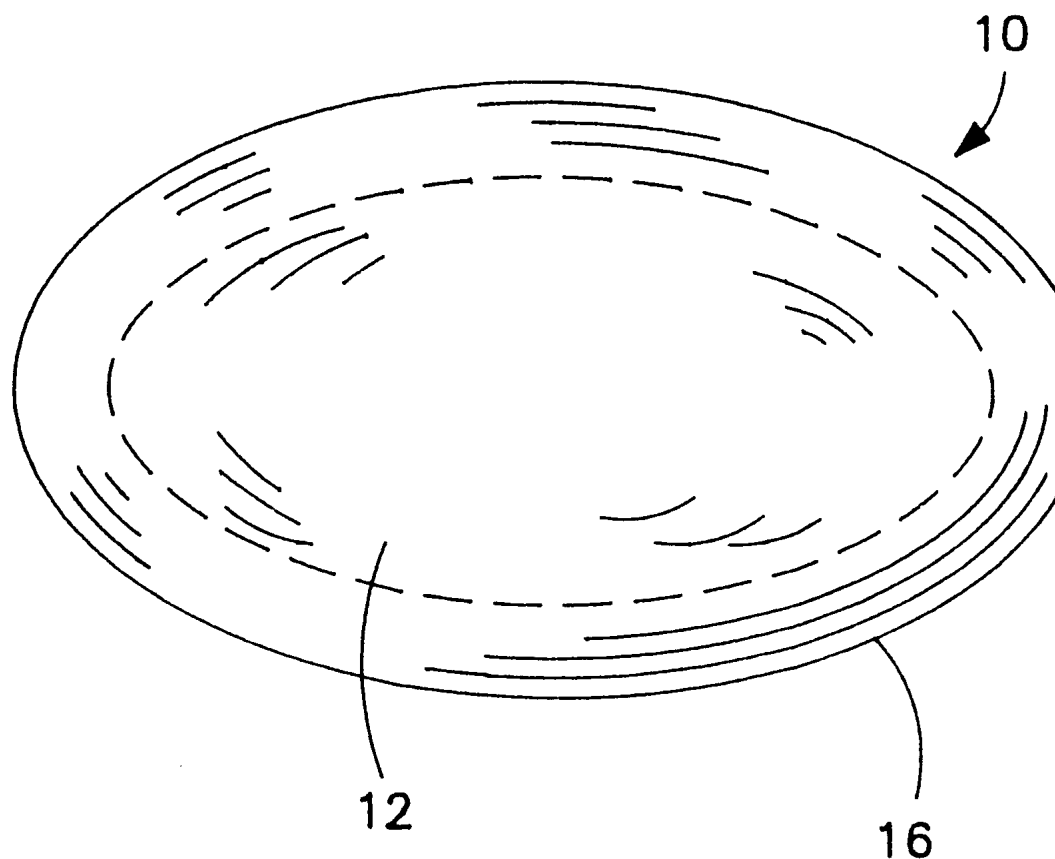
Latest standardized assignees - inventors removed

KAMATA

Family 85/100 - FAMPAT - ©Questel

Title

(US6419952)

Conversion of liquid filled **gelatin capsules** into controlled release systems by multiple coatings**Images****Publication numbers with kind code & date**

US6929803	B2	2005-08-16	US6929803
US20020155154	A1	2002-10-24	US20020155154
US6419952	B2	2002-07-16	US6419952
US20010036472	A1	2001-11-01	US20010036472

**Abstract**

(US20010036472)

A dosage form comprising a **gelatin** capsule formed with a composite wall and containing a liquid, active agent formulation where the wall comprises a barrier layer formed over the external surface of the **gelatin** capsule, an expandable layer formed over the barrier layer and a semipermeable layer formed over the expandable layer is described. The dosage forms and methods provide for the conversion of standard **gelatin**, liquid formulation **capsules** into controlled, release dosage forms that permit the controlled release of the active agent into the environment of use over time.

Inventors

WONG PATRICK S-L

DONG LIANG C

WAN JIANSHENG

Latest standardized assignees - inventors removed

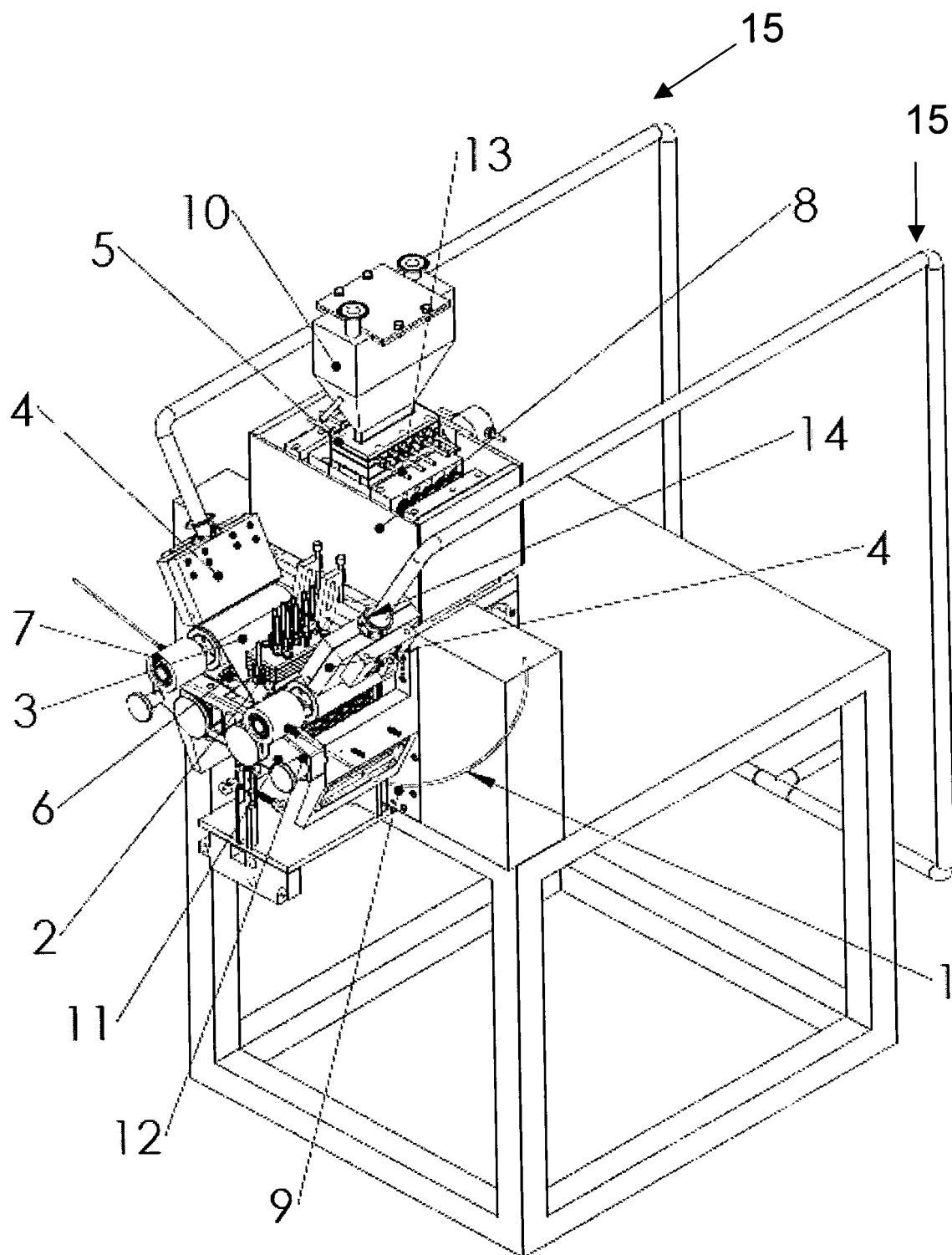
ENCINAL PHARMACEUTICAL INVESTMENTS

Family 86/100 - FAMPAT - ©Questel

Title

(EP2595610)

Improved apparatus and process for making soft gel capsules

Images**Publication numbers with kind code & date**

EP2595610

A4 2015-10-28

EP2595610

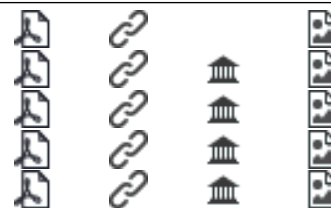
EP2595610

A2 2013-05-29

EP2595610



CO6660492	A2	2013-04-30	CO6660492
WO2012/010980	A3	2012-04-05	WO201210980
US20120049410	A1	2012-03-01	US20120049410
CA2817959	A1	2012-01-26	CA2817959
WO2012/010980	A2	2012-01-26	WO201210980

**Abstract**

(EP2595610)

An apparatus for making softgel capsules comprising: two extrusion nozzles; two cooling and tension rollers; two rotary dies; a wedge; and a filling station. A method is also provided for producing softgel capsules, comprising the steps of: (a) softening or melting a suitable film forming composition; (b) extruding said suitable film forming composition through two extrusion dies directly into two tension rollers; (c) passing the extruded films over rotating dies; (d) simultaneously forming, filling, heat-sealing and cutting capsules; and (e) washing and drying said capsules.

Inventors

ALTAMAR CARLOS SALAZAR
TORRES ORLANDO
TERAN BRAULIO
ANAYA GUSTAVO
NAVARRO NEWMAN AGUAS
HERRERA WILMER

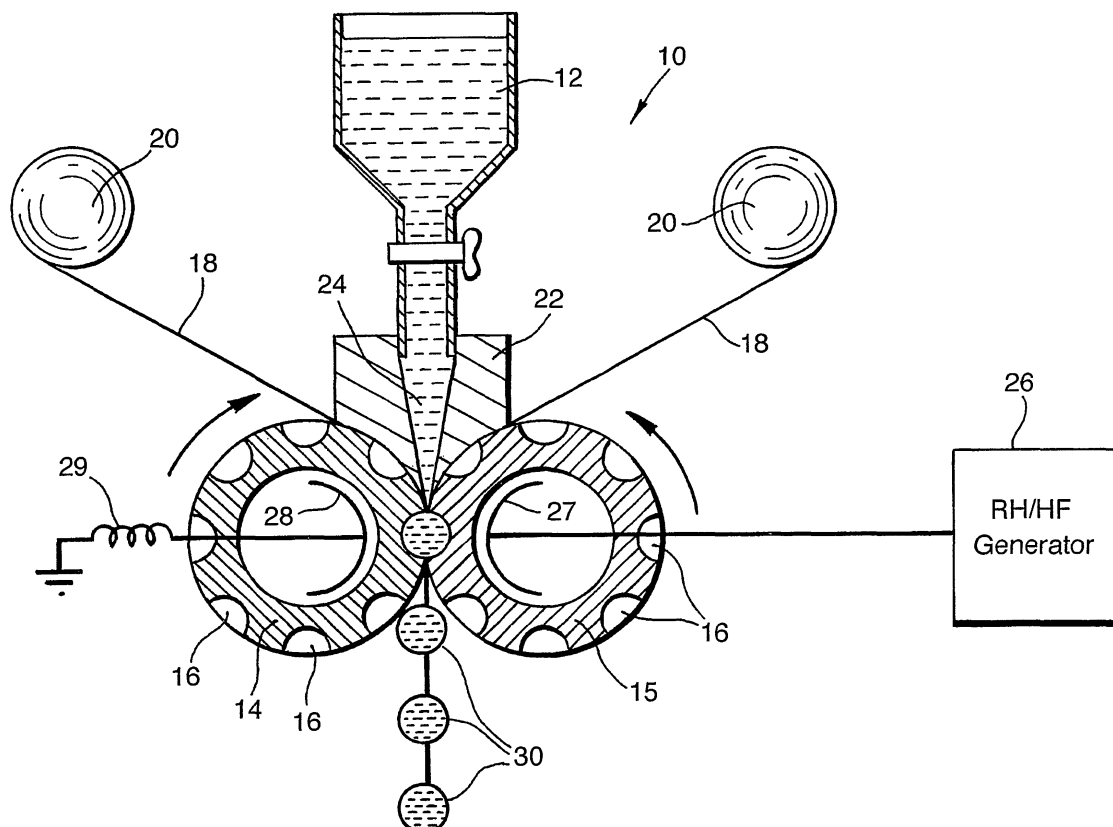
Latest standardized assignees - inventors removed

PROCAPS

Family 87/100 - FAMPAT - ©Questel

Title

(EP1263391)

Capsules**Images**

CZ304926	B6	2015-01-28	CZ-304926				
CA2402450	C	2009-09-08	CA2402450				
KR100857401	B1	2008-09-08	KR100857401				
IL151645	B	2008-03-20	IL-151645				
AU2001240838	B8	2005-09-15	AU2001240838				
AU2001240838	B2	2005-08-25	AU2001240838				
CN1212825	C	2005-08-03	CN1212825C				
RU2240768	C2	2004-11-27	RU2240768				
PL359026	A1	2004-08-23	PL2001359026				
US6755010	B2	2004-06-29	US6755010				
EE200200525	A	2004-04-15	EE200200525				
RU2002127806	A	2004-03-27	RU2002127806				
MXPA02008907	A	2003-10-15	MX2002PA008907				
JP2003526472	A	2003-09-09	JP2003526472				
ZA200207147	B	2003-09-05	ZA200207147				
NZ521408	A	2003-08-29	NZ-521408				
HU0300384	A2	2003-06-28	HU200300384				
CN1418081	A	2003-05-14	CN1418081				
IL151645	A	2003-04-10	IL-151645				
US20030021839	A1	2003-01-30	US20030021839				
BR0109270	A	2002-12-17	BR200109270				
EP1263391	A1	2002-12-11	EP1263391				
NO20024431	L	2002-11-11	NO20024431				
KR20020081454	A	2002-10-26	KR20020081454				
NO20024431	D0	2002-09-16	NO200204431				
AU4083801	A	2001-09-24	AU200140838				
CA2402450	A1	2001-09-20	CA2402450				
WO01/68032	A1	2001-09-20	WO200168032				
GB0006430	D0	2000-05-03	GB200006430				

Abstract

(EP1263391)

Capsules, for example for the delivery of pharmaceuticals, are produced from two films (18) of a water-soluble polymeric material, by deforming the films to form a multiplicity of recesses, and filling the recesses with a flowable filling material. This is performed using two adjacent rotary dies (14, 15), with recesses (16) into which the films (18) are deformed. The dies (14, 15) also act as electrodes for welding the films together by dielectric welding to form filled **capsules** (30). The **capsules** (30) can readily be separated from the resulting web. The polymeric material may be **gelatin**, or a water-soluble cellulose derivative such as hydroxypropyl methyl cellulose, and may also contain a plasticiser.

Inventors

DRAISEY ALLAN

Latest standardized assignees - inventors removed

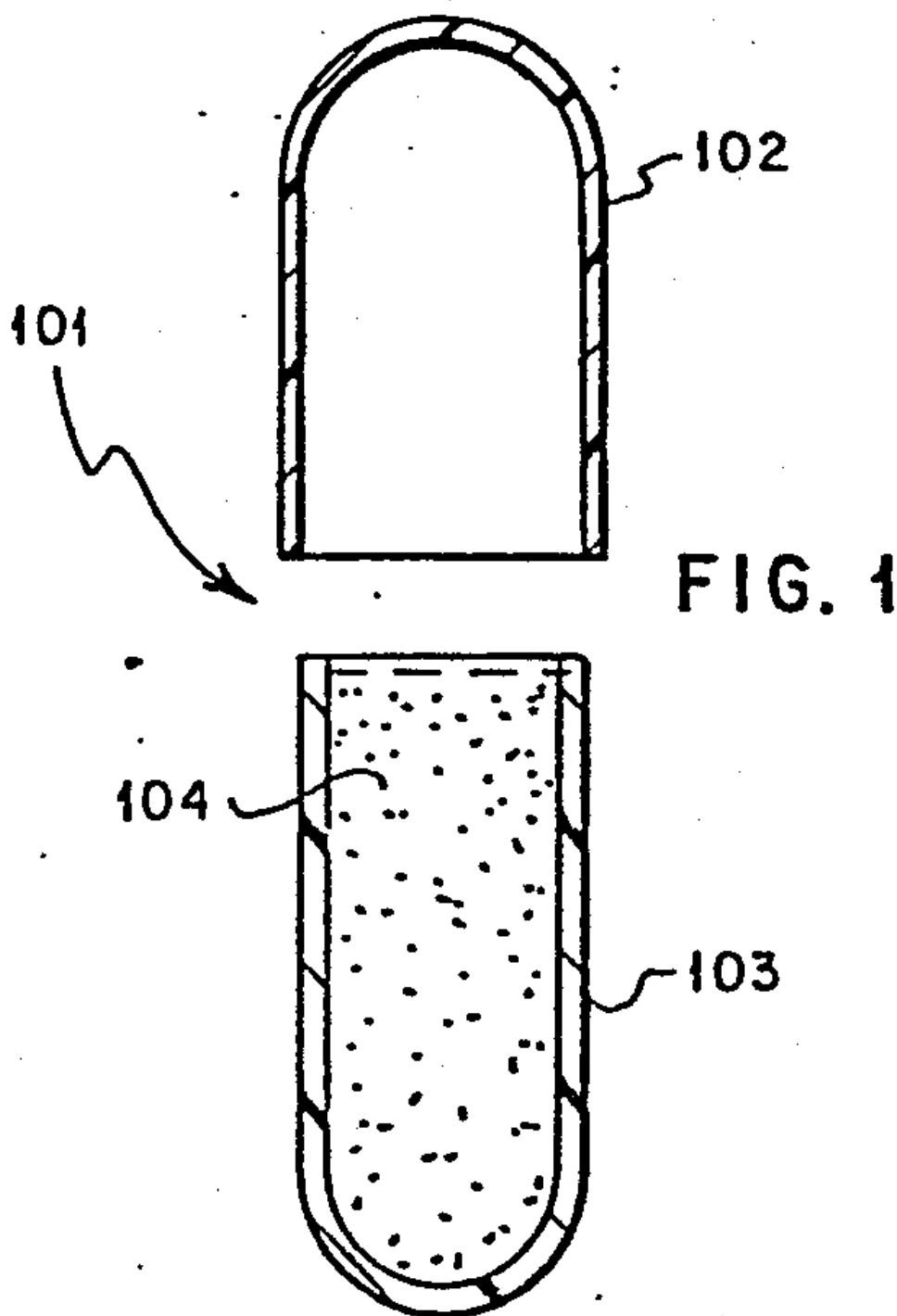
STANELCO RF TECHNOLOGIES

Family 88/100 - FAMPAT - ©Questel

Title

(EP-129445)

Process for forming tamper-resistant tamper-indicative **capsules**.**Images**

**Publication numbers with kind code & date**

US4581875	A	1986-04-15	US4581875
AU2955084	A	1985-06-13	AU8429550
EP0129445	A1	1984-12-27	EP-129445

**Abstract**

(EP0129445)

A process is disclosed for securely joining the two halves (102, 103) of telescoping capsules (101) made of a thermoplastic material such as a rigid gelatin, which process involves spraying a tackifying agent such as steam on one or both of the capsules (102, 103) and rotating them together.

Inventors

MACLAUGHLIN DONALD N

FORTUNA VINCENT E

Latest standardized assignees - inventors removed

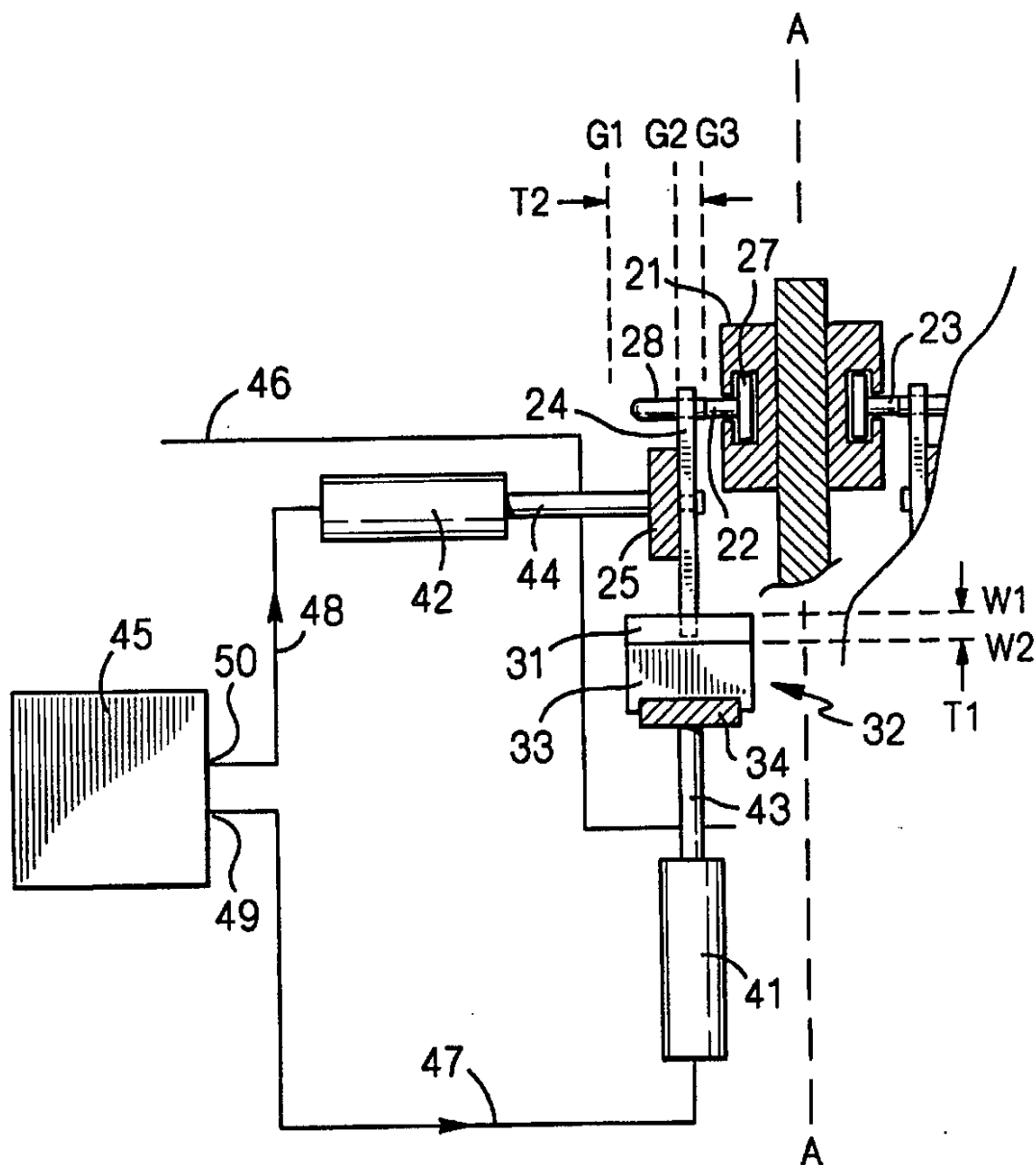
AMERICAN PETROFINA

UNION BANK OF SWITZERLAND

Family 89/100 - FAMPAT - ©Questel

Title

(EP-773858)

Method and apparatus for the manufacture of pharmaceutical cellulose capsules**Images****Publication numbers with kind code & date**

EP0773858

A1 1997-05-21

EP-773858

WO96/39292

A1 1996-12-12

WO9639292

**Abstract**

(EP0773858)

Pharmaceutical hard-shell cellulose capsules, each capsule consisting of a capsule body and a capsule cap, are made from an aqueous solution of a thermogelling cellulose ether composition in a capsule machine using pins (22) as molds. Solution is gelatinized and dried on the surface of a pin (22) to form a cellulose capsule part (28). Adhesion between the

cellulose capsule part (28) and the pin (22) is broken by using a gripper (24) and applying a grip of predefined force and a frictional force on a selected sacrificial portion of the outer circumferential surface of the capsule part (28), the frictional force aligned with the pin axis. After breaking adhesion, gripping is released and the part (28) is moved off the pin (22).

Inventors

GROSSWALD RALPH R

THORNOCK SCOTT D

Latest standardized assignees - inventors removed

3M

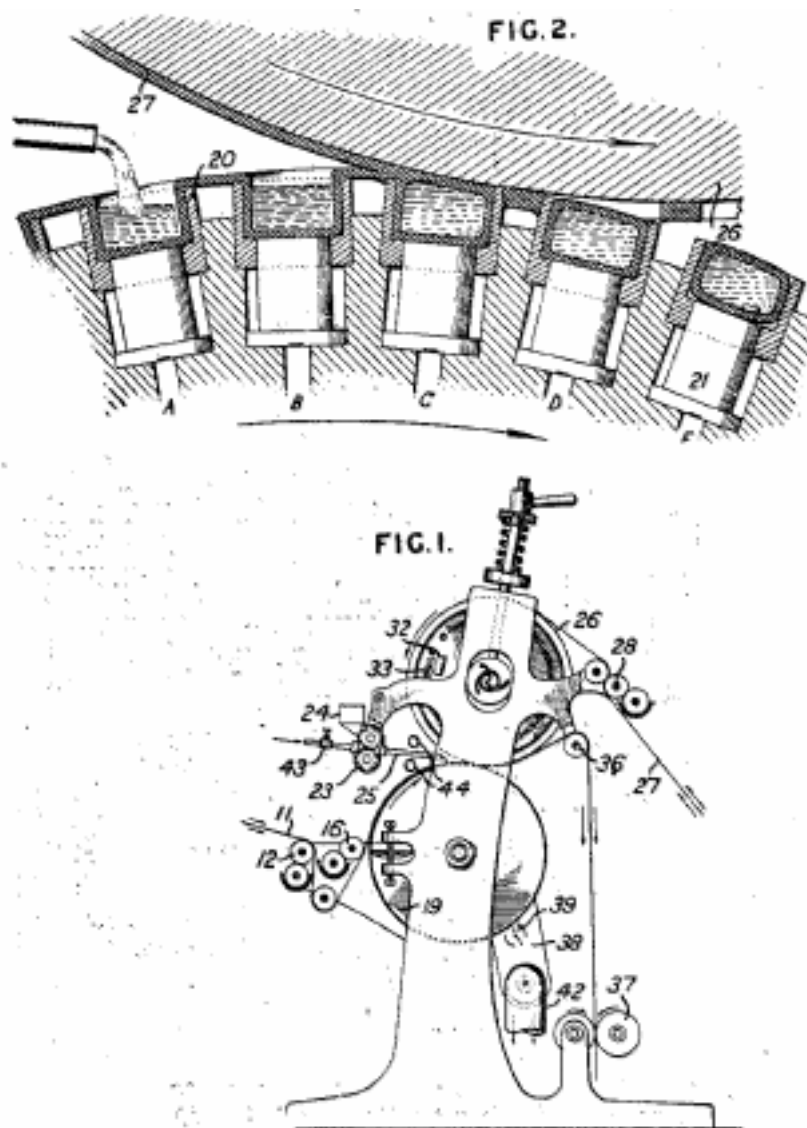
Family 90/100 - FAMPAT - ©Questel

Title

(GB-702285)

Improvements in or relating to **method** of and machine for **manufacturing** filled plastic **capsules**

Images



Publication numbers with kind code & date

GB702285

A

1954-01-13

GB-702285



Abstract

(GB702285)

702,285. Moulding **capsules**. AMERICAN CYANAMID CO. May 31, 1951 [July 19, 1950], No. 12871/51. Class 87 (2) Filled **capsules** are made by passing a strip 11 of **gelatin** around a roll 19 and forming the strips into cavities by applying suction to cavities 20. Liquid, which may have small particles suspended in it, is discharged from a gear pump 23 (which may be of the kind described in U.S.A. Specification 1,785,386), through a nozzle 25 into the cavities at position A, Fig. 2. The rate of

feed of the pump may be varied by a variable drive 24. An upper strip 27 of **gelatin** is fed around a heated roll 26 and at position C the upper and lower strips are sealed together and the capsule so formed is simultaneously out out from the strips. During sealing the vacuum in the cavity 20 is released so that the **gelatin** strip is free from external stresses. The sealed strips are carried off by rollers 36, 37, whilst the finished **capsules** are ejected by a plunger 21 into a discharge shield 38 having a stripper 39. The **capsules** are then picked up by a pneumatic discharge system having a discharge tube 42. The liquid feed pipe may be provided with a valve 43 to allow the **capsules** to be filled with air whilst the machine is being adjusted. A valve may be provided in the discharge tube 42 to separate such air-filled **capsules** from the liquid filled **capsules**. The various strip contacting rollers are driven at the same speed; except for the rollers 37 which are driven at a slightly higher speed. The strips may be stretched before being fed to the machine to give them internal strains which deform the **capsules** after formation. The inside of the strips may be coated with gum mastic, gum sandrac, or a silicone type resin by coating rollers 16, 28. The outside of the lower strip may be oiled by a roller 12. The roller 26 has heating elements 33 controlled by a thermostat 32. Radiant heaters 44 heat the strips just before sealing. The sealing areas of the machine may, be enclosed in an inert atmosphere, e.g. nitrogen or carbon dioxide.

Latest standardized assignees - inventors removed

AMERICAN CYANAMID

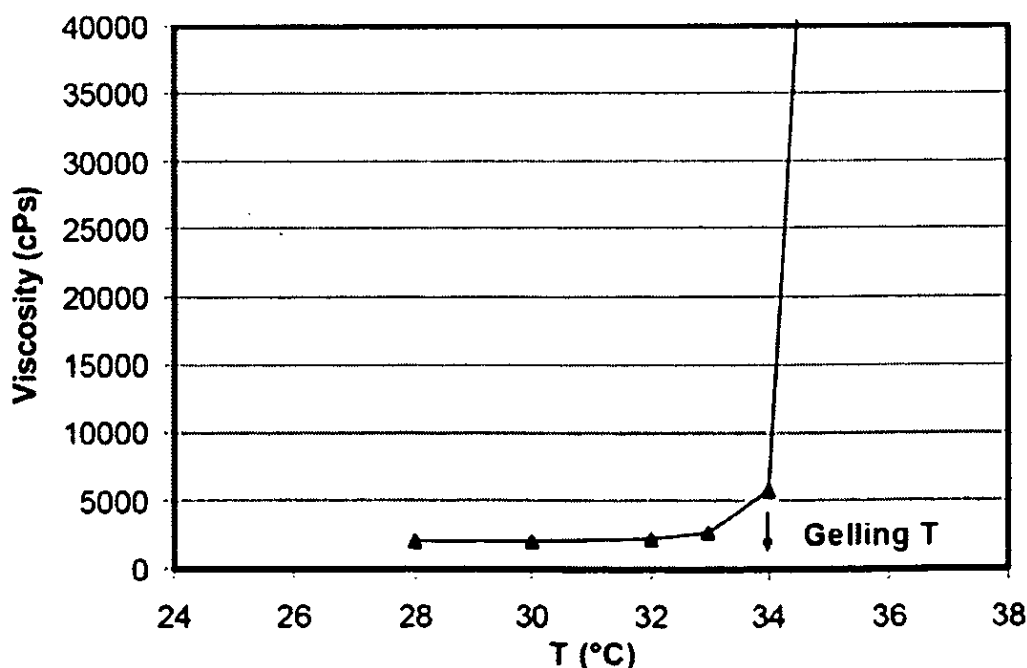
Family 91/100 - FAMPAT - ©Questel

Title

(EP3594248)

Hydroxypropyl methyl cellulose hard **capsules** and process of manufacture

Images



Publication numbers with kind code & date

ES2744816	T3	2020-02-26	ES2744816
EP3594248	A1	2020-01-15	EP3594248
BRPI0717123	B1	2019-11-12	BR200717123
EP2078042	B1	2019-06-12	EP2078042
IN288423	B	2017-10-20	IN-288423
US20140088202	A1	2014-03-27	US20140088202
CA2667167	C	2014-02-18	CA2667167
BRPI0717123	A2	2014-01-07	BR200717123
JP5372761	B2	2013-09-27	JP5372761
CN101595133	B	2012-11-14	CN101595133B



KR101170283	B1	2012-07-31	KR101170283				
KR20120038021	A	2012-04-20	KR20120038021				
RU2420538	C2	2011-06-10	RU2420538				
JP2011500871	A	2011-01-06	JP2011500871				
RU2009115682	A	2010-10-27	RU2009115682				
IN2322/DELNP/2009	A	2010-08-20	IN2009DN02322				
US20100168410	A1	2010-07-01	US20100168410				
CN101595133	A	2009-12-02	CN101595133				
EP2078042	A1	2009-07-15	EP2078042				
KR20090057470	A	2009-06-05	KR20090057470				
MX2009004434	A	2009-05-08	MX2009004434				
AU2007310534	A1	2008-05-02	AU2007310534				
CA2667167	A1	2008-05-02	CA2667167				
WO2008/050209	A1	2008-05-02	WO200850209				

Abstract

(EP3594248)

A composition for manufacture of hard hydroxypropyl methyl cellulose **capsules** comprising a film forming material of hydroxypropyl methyl cellulose having a methoxy content of 27.0-30.0% (w/w), and a hydroxypropoxy content of 4.0 - 7.5% and as a 2% weight solution, a viscosity of 3.5 - 6.0 cPs at 20°C, dipping compositions, process for manufacture of hard hydroxypropyl methyl cellulose **capsules** according to a dip coating process and hard capsule shells.

Inventors

CADE DOMINIQUE NICOLAS

HE XIONGWEI DAVID

Latest standardized assignees - inventors removed

CAPSUGEL BELGIUM

Family 92/100 - FAMPAT - ©Questel

Title

(EP1690518)

Seamless capsule **manufacturing method**, seamless capsule **manufacturing** device, and seamless capsule**Images**

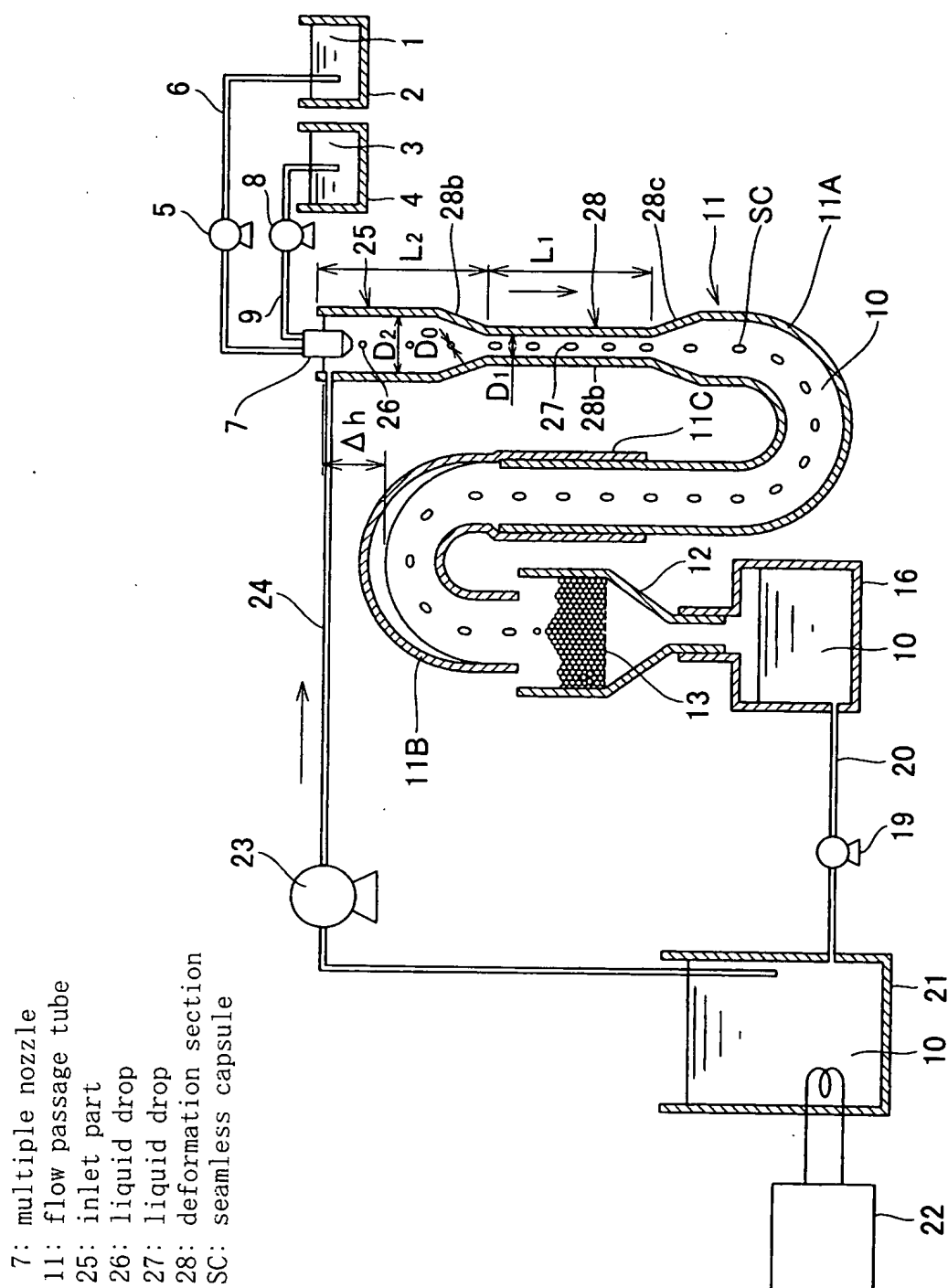


Fig.1

Publication numbers with kind code & date

EP1690518	A4	2008-12-31	EP1690518
JP4051075	B2	2007-12-07	JP4051075
US20070082045	A1	2007-04-12	US20070082045
EP1690518	A1	2006-08-16	EP1690518



[JPWO2005044174](#)

A1

2005-05-19

JP2005044174W

[WO2005/044174](#)

A1

2005-05-19

WO200544174

**Abstract**

(EP1690518)

A seamless capsule **manufacturing** device comprises a multiple nozzle 7 for ejecting liquid drops into hardening liquid 10 and a flow passage tube 11 for containing hardening liquid 10. The flow passage tube 11 has a deformation section 28 that includes an inlet part 25 and a formation tube part 28b showing a cross sectional area smaller than the inlet part 25. The liquid drops ejected from the multiple nozzle 7 into the hardening liquid 10 are once made to become spherical liquid drops 26 in a sol state at the inlet part 25. The liquid drops 26b are introduced from the inlet part 25 into the deformation section 28 while they are still in a sol state. As hardening liquid 10 is introduced from the inlet part 25 into the formation tube part 28b, its flow rate is changed and the liquid drops 26 are deformed due to the change in the flow rate to produce nonspherical seamless **capsules** SC. With this arrangement, it is possible to provide a **method** and a device for **manufacturing** high quality nonspherical seamless **capsules** with an enhanced level of productivity without requiring cumbersome parameter defining operations and delicate control operations.

Inventors

YAMANAKA KUNIAKI

UNOSAWA KAZUOMI

TAKEI NARIMICHI

KONNO SHOUJI

IKEDA MASAYUKI

Latest standardized assignees - inventors removed

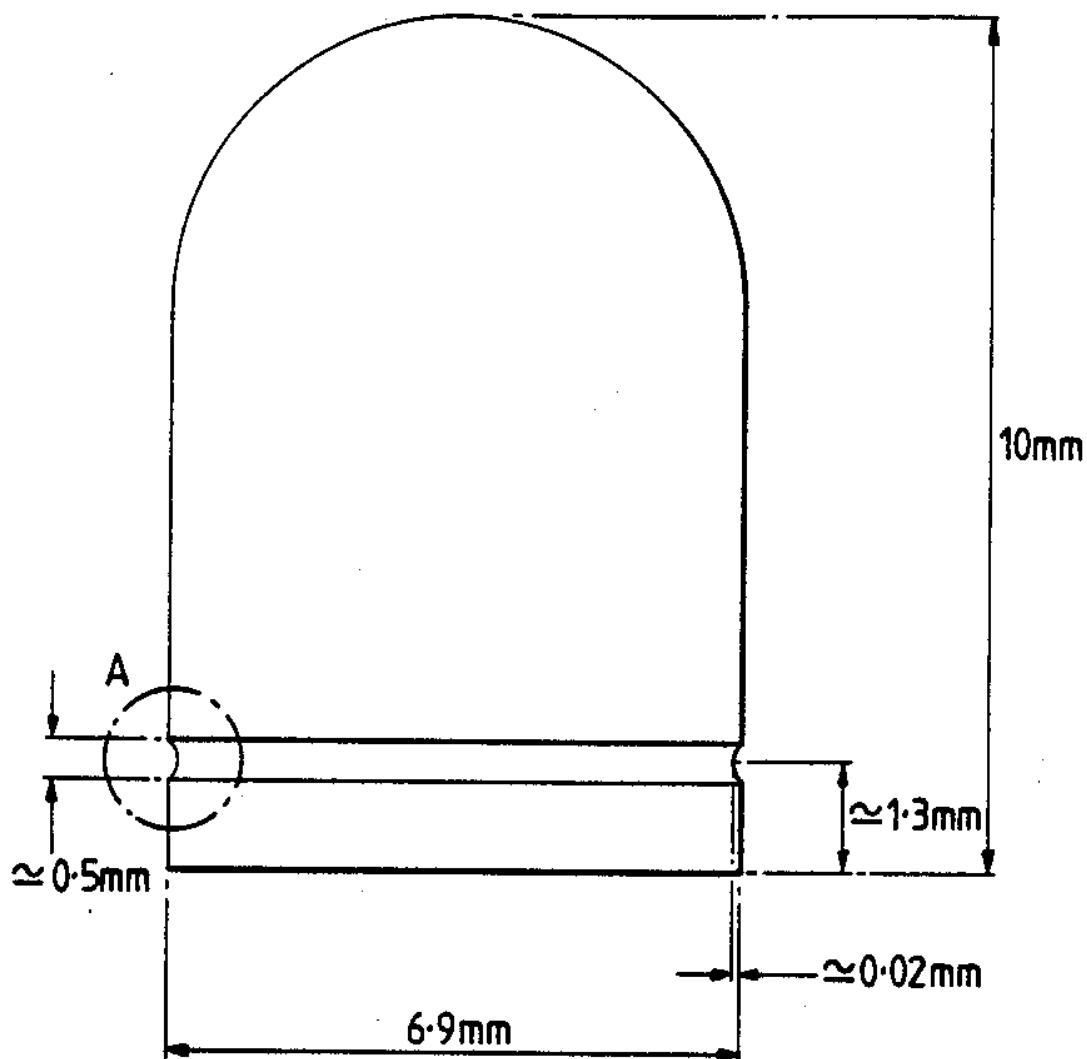
FREUND

Family 93/100 - FAMPAT - ©Questel

Title

(EP-246804)

Improvements in **capsules****Images**



Publication numbers with kind code & date

DK171759	B1	1997-05-12	DK-171759
KR960001651	B1	1996-02-03	KR960001651
YU47261	B	1995-01-31	YU--47261
IE60665	B1	1994-08-10	IE--60665
IL82491	B	1993-07-08	IL--82491
GR3003784	T3	1993-03-16	GR3003784
MX166548	B	1993-01-18	MX-166548
CA1308654	C	1992-10-13	CA1308654
YU85387	A	1992-09-07	YU8700853
ES2029686	T3	1992-09-01	ES2029686
BG50375	A3	1992-07-15	BG--50375
DE3775981	D1	1992-02-27	DE3775981
AT71512	T	1992-02-15	ATE071512
EP0246804	B1	1992-01-15	EP-246804
TR24476	A	1991-10-11	TR--24476
AU607416	B2	1991-03-07	AU-607416
CS268180	B2	1990-03-14	CS-268180
PT84855	B	1990-02-08	PT--84855
DD274354	A5	1989-12-20	DD-274354
NZ220283	A	1989-08-29	NZ-220283
PH23540	A	1989-08-25	PH--23540
US4822618	A	1989-04-18	US4822618



HU197202	B	1989-03-28	HU-197202				
ZA873433	B	1989-01-25	ZA-873433				
CS344487	A2	1989-01-12	CS8703444				
EP0246804	A3	1988-08-10	EP-246804				
JPS63115560	A	1988-05-20	JP63115560				
HUT44702	A	1988-04-28	HU-T44702				
KR870010855	A	1987-12-18	KR19870010855				
IL82491	A	1987-11-30	IL--82491				
EP0246804	A2	1987-11-25	EP-246804				
AU7273087	A	1987-11-19	AU8772730				
DK248887	A	1987-11-16	DK8702488				
IE871245	L	1987-11-15	IE8701245				
PT84855	A	1987-06-01	PT--84855				
DK248887	D0	1987-05-14	DK8702488				
GB8611905	D0	1986-06-25	GB8611905				

Abstract

(EP0246804)

A **gelatin** capsule cap has an annular groove in the region of its open end to reduce ovality.

Inventors

SCHWEIGER, BERNARD

WAGNER, ALFRED

Latest standardized assignees - inventors removed

SHIONOGI EUROPE

Family 94/100 - FAMPAT - ©Questel

Title

(EP2011874)

Recombinant **gelatin** in vaccines**Images**

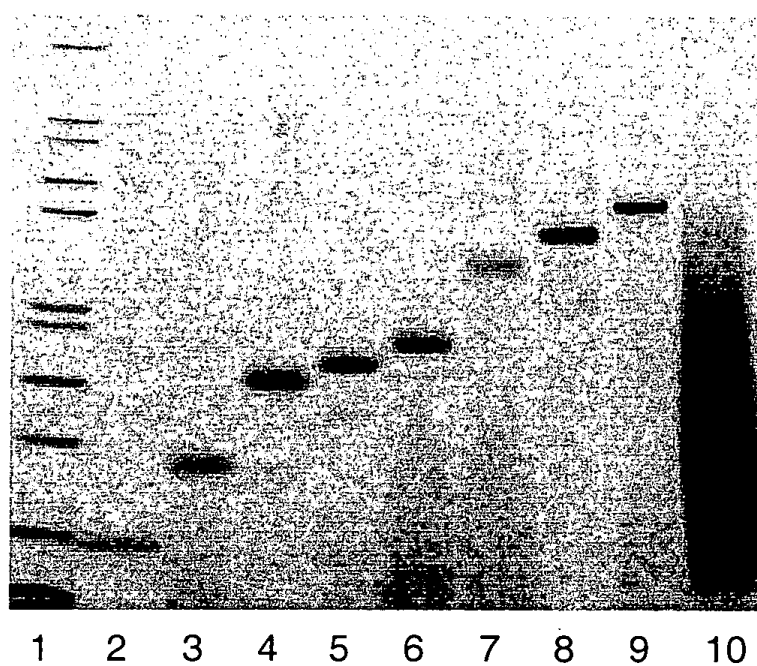


Figure 1

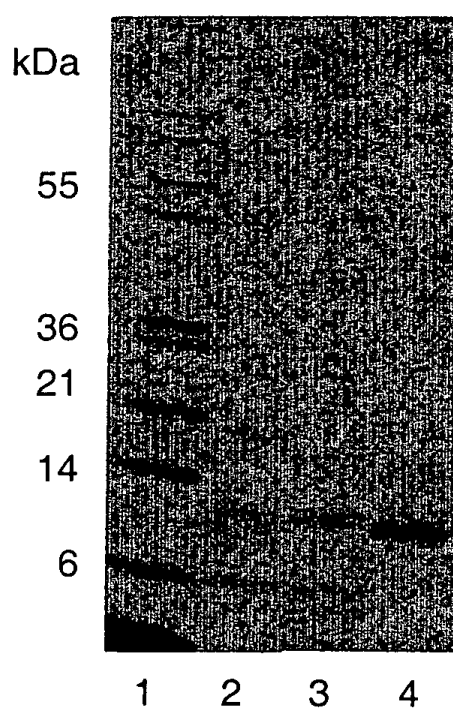
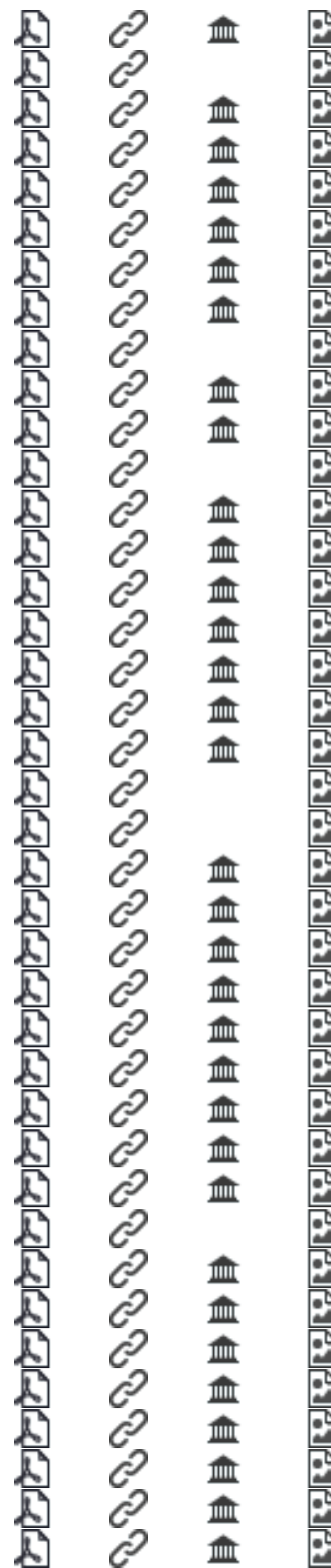


Figure 3

Publication numbers with kind code & date

CA2388477	C	2014-01-21	CA2388477
HK1046004	A1	2013-11-08	HK1046004
EP1232181	B1	2013-03-27	EP1232181
EP2345721	A1	2011-07-20	EP2345721
IL149459	B	2010-11-30	IL-149459
JP4597454	B2	2010-10-01	JP4597454
US20090143568	A1	2009-06-04	US20090143568
ES2315244	T3	2009-04-01	ES2315244
HK1046016	A1	2009-02-27	HK1046016
EP2011874	A1	2009-01-07	EP2011874
DE60040012	D1	2008-10-02	DE60040012
AT405647	T	2008-09-15	ATE405647
EP1232262	B1	2008-08-20	EP1232262
US7393928	B2	2008-07-01	US7393928
CN1309737	C	2007-04-11	CN1309737C
IN0474/DELNP/2002	A	2006-12-29	IN2002DN00474
US6992172	B1	2006-01-31	US6992172
US20050229264	A1	2005-10-13	US20050229264
IN0473/DELNP/2002	A	2004-02-28	IN2002DN00473
RU2002112751	A	2004-02-27	RU2002112751
MXPA02004666	A	2003-06-24	MX2002PA004666
CN1423659	A	2003-06-11	CN1423659
BR0015508	A	2003-06-10	BR200015508
JP2003516730	A	2003-05-20	JP2003516730
JP2003513988	A	2003-04-15	JP2003513988
WO01/34646	A9	2002-11-21	WO200134646
IL149459	A	2002-11-10	IL-149459
EP1232181	A2	2002-08-21	EP1232181
EP1232262	A2	2002-08-21	EP1232262
WO01/34801	A9	2002-08-15	WO200134801
KR20020059719	A	2002-07-13	KR20020059719
WO01/34801	A3	2002-01-31	WO200134801
WO01/34646	A3	2001-12-06	WO200134646
AU1591701	A	2001-06-06	AU200115917
AU1593001	A	2001-06-06	AU200115930
CA2388477	A1	2001-05-17	CA2388477
CA2390995	A1	2001-05-17	CA2390995
WO01/34646	A2	2001-05-17	WO200134646
WO01/34801	A2	2001-05-17	WO200134801

**Abstract**

(EP2011874)

The present invention relates to vaccines comprising recombinant **gelatin**, to methods of producing and using such vaccines, and to vaccination kits.

Inventors

CHANG ROBERT C

KIVIRIKKO KARI I

NEFF THOMAS B

OLSEN DAVID R

POLAREK JAMES W

Latest standardized assignees - inventors removed

FIBROGEN

Family 95/100 - FAMPAT - ©Questel

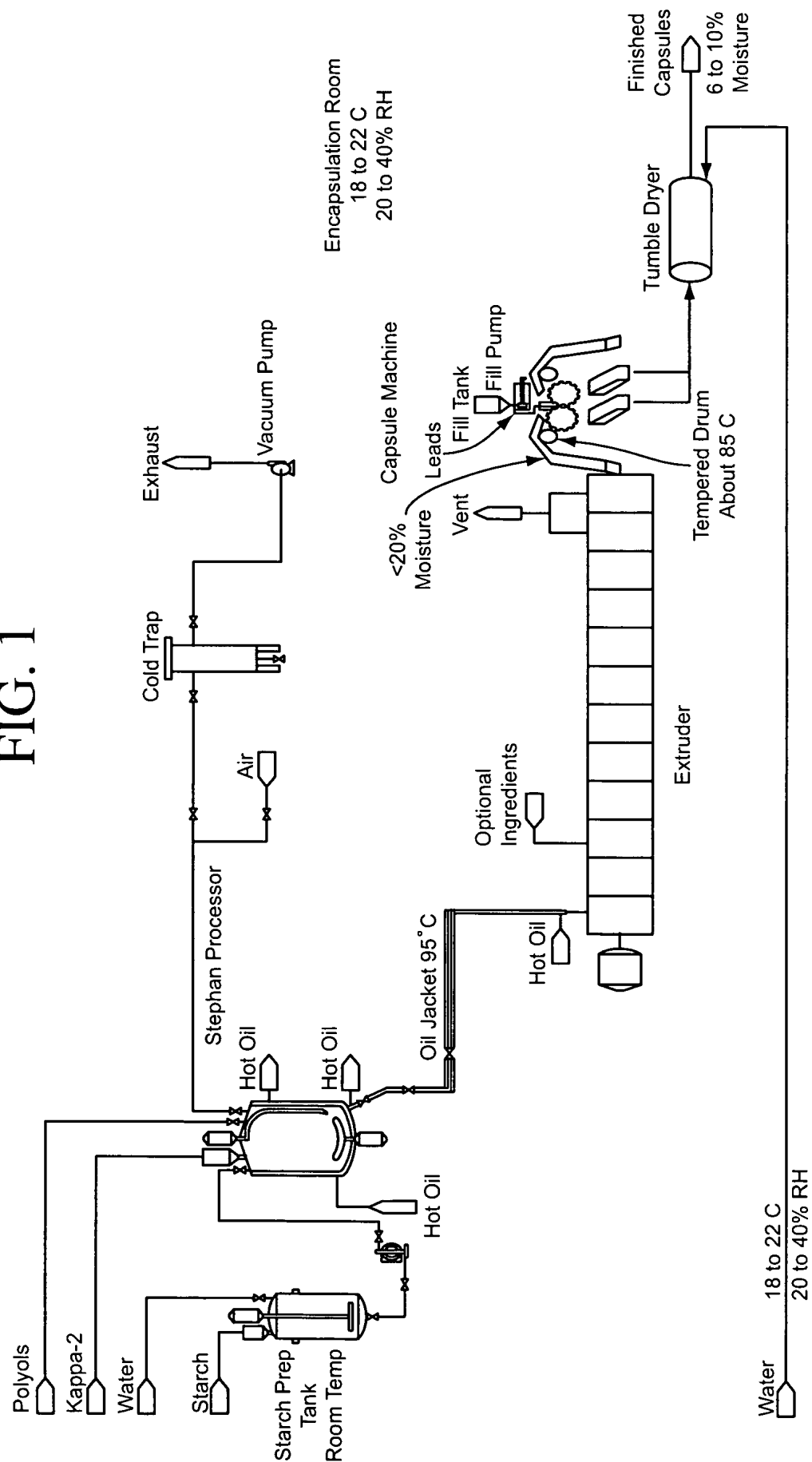
Title

(EP1617815)

Process for making gel films

Images

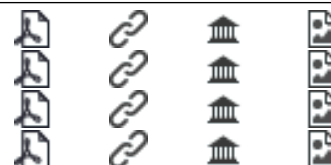
FIG. 1



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CA2522295	C	2012-02-07	CA2522295				
IL171291	B	2010-12-30	IL-171291				
JP4602326	B2	2010-10-08	JP4602326				
US7807194	B2	2010-10-05	US7807194				
JP4558721	B2	2010-07-30	JP4558721				
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IN236994	B	2009-12-04	IN-236994				
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US20080089934	A1	2008-04-17	US20080089934				
IN4644/DELNP/2005	A	2007-11-09	IN2005DN04644				
JP2007528357	A	2007-10-11	JP2007528357				
IN4650/DELNP/2005	A	2007-10-05	IN2005DN04650				
IN4639/DELNP/2005	A	2007-09-28	IN2005DN04639				
IN4640/DELNP/2005	A	2007-09-28	IN2005DN04640				
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WO2004/091532	A3	2006-05-18	WO200491532				
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EP1620059	A2	2006-02-01	EP1620059				
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WO2004/091533	A2	2004-10-28	WO200491533
WO2004/091537	A2	2004-10-28	WO200491537
WO2004/091538	A2	2004-10-28	WO200491538
WO2004/091539	A2	2004-10-28	WO200491539

**Abstract**

(EP1617815)

The present invention is directed to a process for making homogeneous, thermoreversible gel films comprising the steps of: (i) heating, hydrating, mixing, solubilizing, and, optionally, de-aerating a high solids, low moisture film forming composition in an apparatus providing sufficient shear, temperature and residence time to form a homogeneous molten composition, wherein the temperature is at or above the solubilizing temperature of said composition; (ii) feeding the molten composition into at least one of a mixer, pump or devolatilizer; and (iii) cooling the homogeneous molten composition at or below its gelling temperature to form said gel films. The present invention is also directed to various products made from such films, such as the gel films themselves, soft **capsules**, solid dosage forms and delivery systems.

Inventors

BALLARD ARTHUR D
SEWALL CHRISTOPHER J
MODLISZEWSKI JAMES J
BLAKEMORE WILLIAM R
RILEY PETER J

Latest standardized assignees - inventors removed

DUPONT NUTRITION BIOSCIENCES

Family 96/100 - FAMPAT - ©Questel

Title

(JP07133465)

Method of recovering **gelatin** in producing soft capsule product**Publication numbers with kind code & date**

JP2640330	B2	1997-08-13	JP2640330
JP07133465	A	1995-05-23	JP07133465

**Abstract**

(JP07133465)

PURPOSE: To efficiently, easily recover **gelatin** reusable in the medical field, etc., by grinding, together with water, perforated **gelatin** sheets produced in **manufacturing** soft capsule products to effect swelling to release the releasant on the **gelatin** sheet surface followed by filtering the suspension produced.

CONSTITUTION: Perforated **gelatin** sheets produced during **manufacturing** soft capsule products by perforation **method** are ground, together with water in a grinder along with swelling the **gelatin** sheet material by the water to release the releasant on the **gelatin** sheet surface, and the resultant suspension is filtered to recover the aimed **gelatin**.

COPYRIGHT: (C)1995,JPO

Inventors

ONO NORIYOSHI
Fumio Ozeki

Latest standardized assignees - inventors removed

FUJI CAPSULE

Family 97/100 - FAMPAT - ©Questel

Title

(FR1153998)

Improvements to a **method** of manufacture of **capsules** and the **capsules** obtained by this **method****Publication numbers with kind code & date**

FR1153998

A

1958-03-31

FR1153998

**Latest standardized assignees - inventors removed**

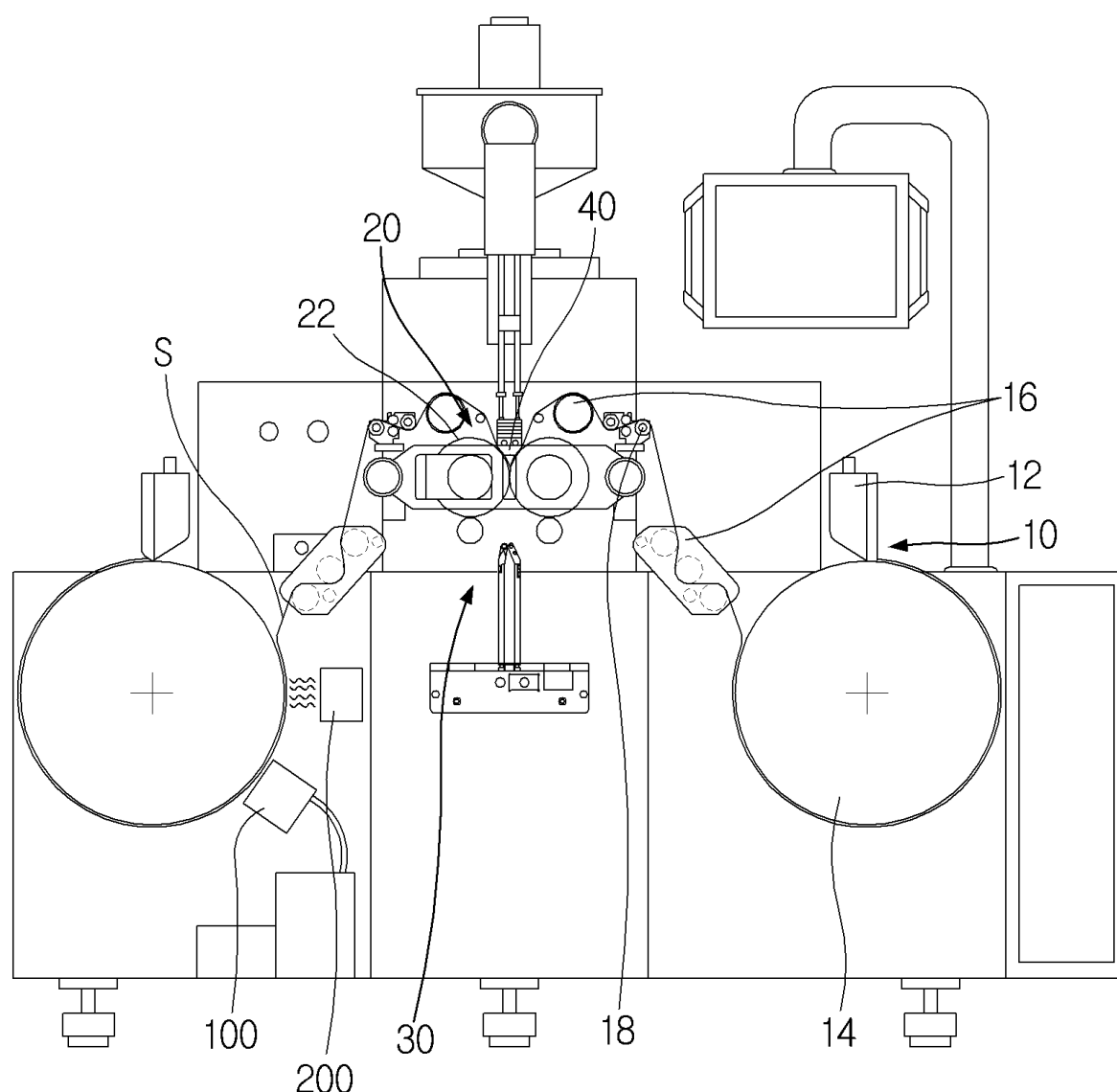
R P SCHERER

Family 98/100 - FAMPAT - ©Questel

Title

(KR20120033921)

Soft capsule **manufacturing** device having a printing function capable of performing printing before supplying oil to a **gelatin** sheet

Images**Publication numbers with kind code & date**

KR20120033921

A

2012-04-09

KR20120033921

**Abstract**

(KR20120033921)

PURPOSE: A soft capsule **manufacturing** device is provided to improve productivity by excluding a printing process and a separate cleaning process.

CONSTITUTION: A soft capsule **manufacturing** device comprises a sheet forming unit(10), a capsule forming unit(20), and a capsule recovery unit(30). In the sheet forming unit, a drying device is installed in order to dry a generic number printed part. The sheet forming unit comprises a spreader box and a drum roller. The spreader box is connected to a **gelatin** tank by a feed hose. The drum roller spreads **gelatin** in a predetermined thickness.

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Inventors

YOON SONG-CHOL

Family 99/100 - FAMPAT - ©Questel

Title

(FR-889118)

Method and device for the manufacture of seamless **capsules**, in particular **gelatin**, forming containers**Publication numbers with kind code & date**

FR889118 A 1943-12-31 FR-889118

**Latest standardized assignees - inventors removed**

DEN BERGH S EN JURGENS FABRIEK

Family 100/100 - FAMPAT - ©Questel

Title

(EP2181691)

Antiperspirant compositions

Images

$$H = \frac{W}{A}$$

Publication numbers with kind code & date

PL2340008	T3	2017-09-29	PL2340008
ES2628203	T3	2017-08-02	ES2628203
ES2618314	T3	2017-06-21	ES2618314
IN284126	B	2017-06-16	IN-284126
EP2340008	B1	2017-03-29	EP2340008
CA2740976	C	2017-02-28	CA2740976
JP6097012	B2	2017-02-24	JP6097012
BRPI0914346	B1	2017-02-21	BR200914346
EP2181691	B1	2016-12-21	EP2181691
BRPI0914346	A2	2015-10-20	BR200914346
EA021290	B1	2015-05-29	EA--21290
US8518425	B2	2013-08-27	US8518425
CN102264341	B	2013-06-19	CN102264341B
AU2009309893	B2	2013-05-30	AU2009309893
JP2012506846	A	2012-03-22	JP2012506846
IN0828/MUMNP/2011	A	2012-02-10	IN2011MN00828
EA201170610	A1	2011-12-30	EA201170610
CN102264341	A	2011-11-30	CN102264341
MX2011004423	A	2011-07-28	MX2011004423
EP2340008	A1	2011-07-06	EP2340008
AR073973	A1	2010-12-15	AR--73973
AU2009309893	A1	2010-05-06	AU2009309893
CA2740976	A1	2010-05-06	CA2740976
WO2010/049237	A1	2010-05-06	WO201049237
EP2181691	A1	2010-05-05	EP2181691
US20100104611	A1	2010-04-29	US20100104611

**Abstract**

(EP2181691)

Anhydrous antiperspirant compositions containing an encapsulated fragrance, in which the encapsulate shell comprises a cross-linked **gelatin** coacervate. The encapsulates have a volume average particle diameter in the range of 25 to 70 µm, a

shell having a measured thickness in the range of from 0.2 to 2.5 μm , a ratio of the shell thickness to the average particle diameter in the range of from 1:5 to 1:120 and a Hysitron hardness in the range of from 2 MPa to 50 MPa, enabling them to be advantageously employed in the anhydrous antiperspirant compositions.

Inventors

CHAN CATRIN SIAN

CROPPER MARTIN PETER

FRANKLIN KEVIN RONALD

JOHNSON SIMON ANTHONY

MCKEOWN ROBERT

Latest standardized assignees - inventors removed

UNILEVER