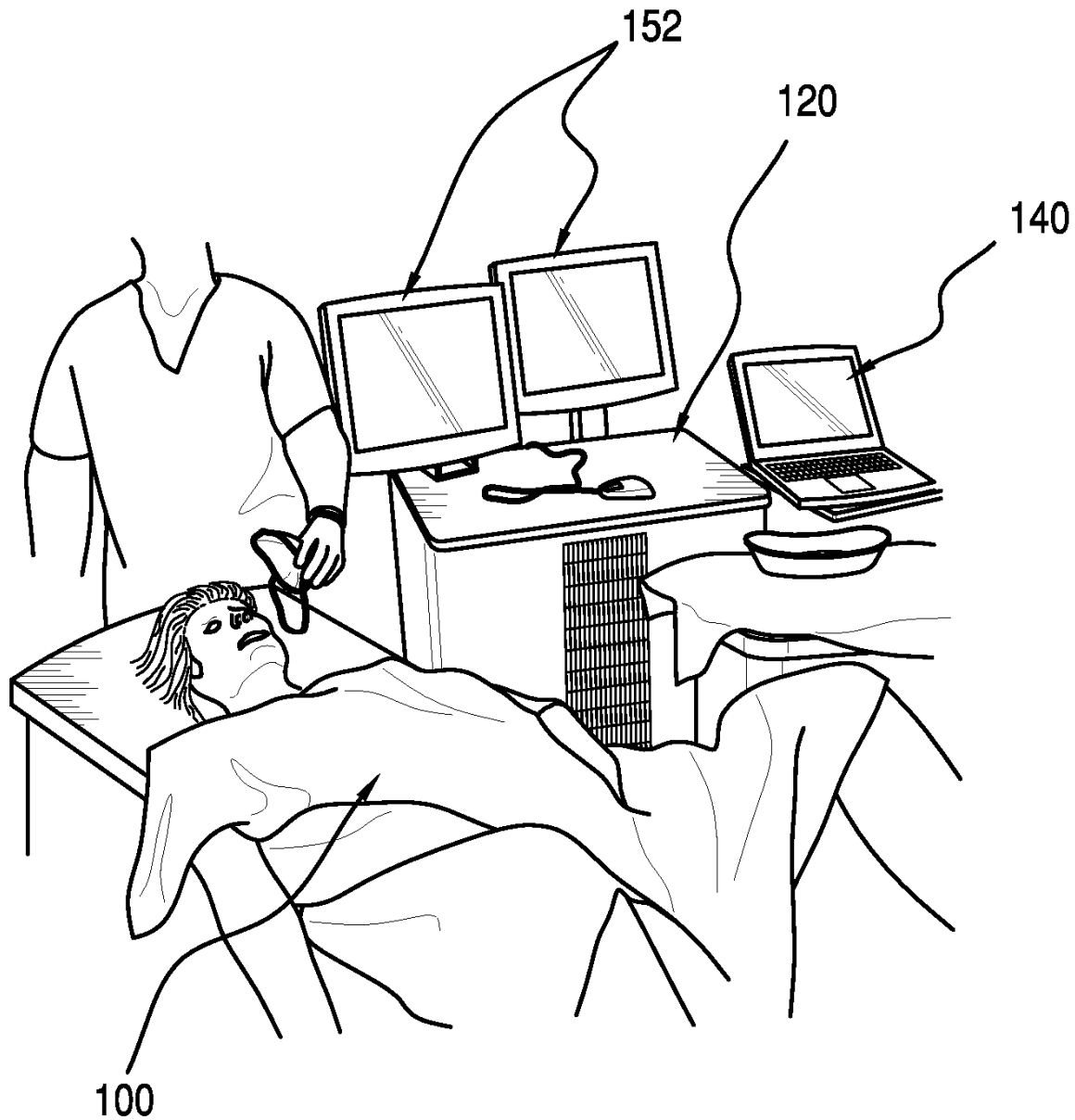


Base : FAMPAT**SEARCH STRATEGY****SS Results**

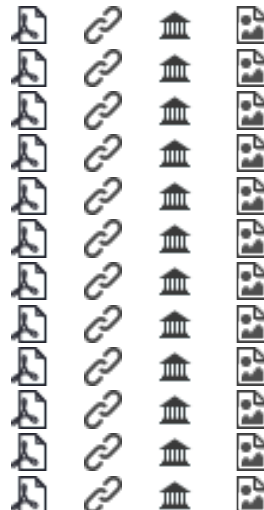
18	9	17 AND (COIL+ OR ELECTROMAGNET+ OR MAGNET+ OR MOTOR+ OR ELECTROACOUSTIC+)
17	77	SIMULAT+ AND (FETUS OR FOETUS OR FETAL OR FOETAL) AND (PULSATION+ OR PULSE OR HEART RATE OR HEART)
16	18	15 AND (GEL+ OR SILICONE+ OR FLUID+ OR LIQUID+)
15	92	14 AND (FETUS OR FOETUS FETAL OR FOETAL) AND (PULSATION+ OR PULSE OR HEART RATE OR HEART)
14	120983	7 AND (COIL+ OR ELECTROMAGNET+ OR MAGNET+ OR MOTOR+ OR ELECTROACOUSTIC+)
13	7	4 AND (COIL+ OR ELECTROMAGNET+ OR MAGNET+ OR MOTOR+ OR ELECTROACOUSTIC+)
12	5	11 AND (COIL+ OR ELECTROMAGNET+ OR MAGNET+ OR MOTOR+ OR ELECTROACOUSTIC+)
11	32	9 AND (FETUS OR FOETUS FETAL OR FOETAL OR UNBORN)
10	31	9 AND (FETUS OR FOETUS FETAL OR FOETAL)
9	1069	8 AND HEART+
8	16684	7 AND SIMULAT+
7	611605	..SEMSEARCH "COIL" 100 "ELECTRICAL SIGNAL" 82 "FETAL MONITOR ULTRASONIC TRANSDUCER" 51 "MAGNETIC FIELD" 50 "ELECTROACOUSTIC TRANSDUCER" 46 "METAL MEMBRANE" 44 "SILICONE" 44 "BABY NORMAL BEAT" 43 "ELECTROACOUSTIC PLAYER" 43 "INVENTED TRANSDUCER" 43 "ELECTRIC CURRENT" 41 "MICROCONTROLLER" 39 "PLASTIC HOUSING" 39 "TRANSDUCER" 38 "BRADYCARDIA" 35 "TACHYCARDIA" 35 "SIGNAL" 34 "ACOUSTICS" 32 "MAGNET" 31 "TURNING" 25 "AMNIOTIC FLUID" 6 "COIL DISPLACEMENT" 6 "CURRENT INTENSITY" 6 "EQUAL MAGNITUDE GENERATING" 6 "MEMBRANE OSCILLATION" 6 "PERMANENT MAGNET" 6 "SPECIFIC GRAVITY" 6 "COMPANY" 5 "FETUS" 5 "MAIN REASON" 5 "RIGID SUPPORT" 5 "THICK" 4
6	0	(CO20180003544)/PN
5	2	4 AND (COIL+ OR ELECTROMAGNET+ OR MAGNET+)
4	48	SIMULAT+ AND (FETUS OR FOETUS FETAL OR FOETAL) AND (PULSATION+ OR PULSE OR HEART RATE OR HEART)
3	1451	..SIMILARITY SS 2 RANKED 1
2	16	SIMULAT+ AND (FETUS OR FOETUS FETAL OR FOETAL) AND (PULSATION+ OR PULSE OR HEART RATE)
1	6	(SIMULATOR AND FETAL AND CARDIAC AND PULSATIONS)/TX/BI/SA/KEYW/IN/PA

9 Documents

Publication numbers	Title	Current assignees
WO200939210 A2	Obstetrics simulation and training method and system	US ARMY
CN102090887 A	Fetal heart simulating system and method	EDAN INSTRUMENTS
GB200013770 D0	Obstetrics training aid	CYBERMEDIX
US20070122785 A1	Interactive education system for teaching patient care	GAUMARD SCIENTIFIC
CN204884374U U	Multi -functional portable pregnant woman's belly model	JILIN UNIVERSITY
CN105686473 A	Newborn bed imitating mother heartbeat vibration environment	ZHAI FENGPING
CA2581439 A1	Life augmentation	VOON GERARD G V
CA2957336 A1	Placental stem cell populations	CELULARITY
CA2629555 A1	Related/overlapping innovations in health/energy/transport/farming and infrastructure	VOON GERARD



WO2009039210	A2	2009-03-26	WO200939210
AU2008302348	A1	2009-03-26	AU2008302348
WO2009039210	A3	2009-06-25	WO200939210
WO2009039210	A9	2010-02-25	WO200939210
EP2193514	A2	2010-06-09	EP2193514
IN0070/MUMNP/2010	A	2010-06-25	IN2010MN00070
US20100227303	A1	2010-09-09	US20100227303
JP2010539552	A	2010-12-16	JP2010539552
US20110189641	A1	2011-08-04	US20110189641
US7997904	B2	2011-08-16	US7997904
EP2193514	A4	2011-12-28	EP2193514
US8323032	B2	2012-12-04	US8323032



Abstract

(EP2193514)

In the modern practice of obstetrics, the military is in the position of having experts in both simulation training for obstetric emergencies and teamwork training. The military has the potential to train better and provide the safest environment possible with these resources. Accordingly, an embodiment of the invention provides an obstetrics simulation system, comprising an articulating maternal birthing simulator. The maternal birthing simulator is a full size and full-body female having an intubeable airway with a chest rise component, a forearm having a medication receiving component, and/or a fetal heart sound component. Additionally, the maternal birthing simulator includes a head descent and cervical dilation monitor, a placenta positionable in at least two locations, two or more removable dilating cervices, and/or postpartum vulval suturing inserts.

Inventors

DEERING SHAD H

Latest standardized assignees - inventors removed

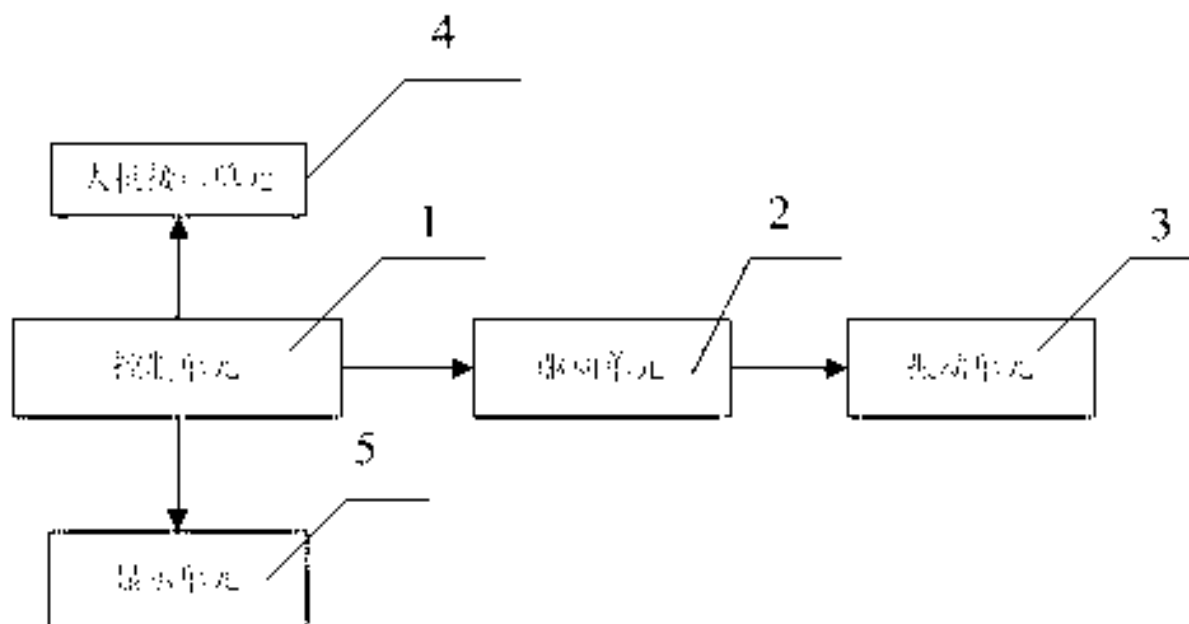
US ARMY

Family 2/9 - FAMPAT - ©Questel

Title

(CN102090887B)

Fetal heart simulating system and method

Images**Publication data including kind & date**

CN102090887	A	2011-06-15	CN102090887
CN102090887	B	2012-11-07	CN102090887B

**Abstract**

(CN102090887B)

The invention relates to a fetal heart simulating system and method. A control unit generates a control signal of simulating a fetal heart, a drive unit receives the control signal of the control unit and transmits the amplified control signal to a vibration unit, and the vibration unit generates vibration of simulating the fetal heart according to an electric signal of the drive unit. The fetal heart simulating method and system provided by the invention can be used for regulating and setting any frequency and amplitude of fetal heart rate for simulating; meanwhile, the control part and the simulating vibration part are integrated, therefore, the fetal heart simulating system is convenient for use.

Inventors

WANG HAIDONG

GAN XUEFENG

KANG JIANGYUN

ZHAO XIANGGANG

Latest standardized assignees - inventors removed

EDAN INSTRUMENTS

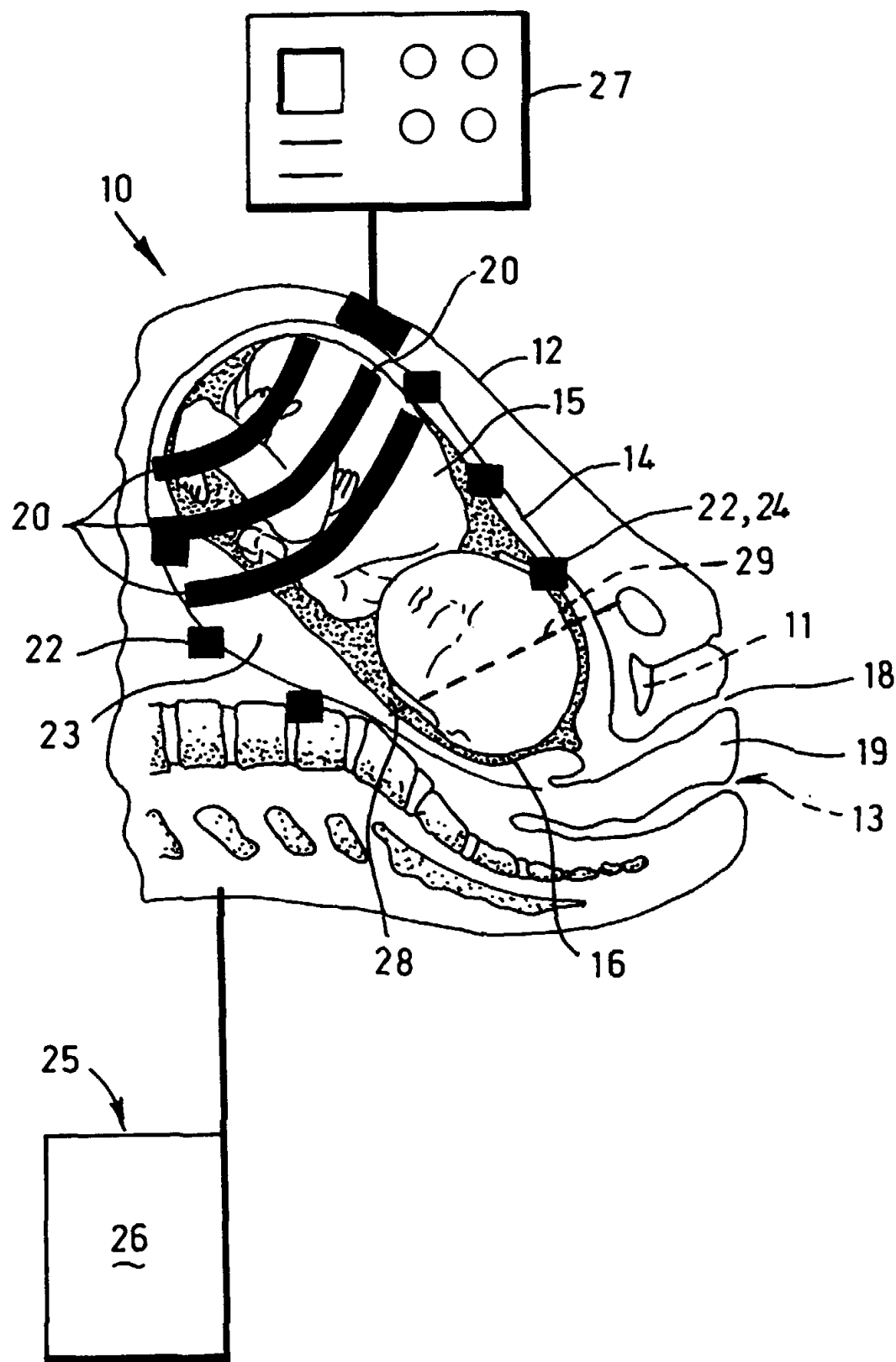
Family 3/9 - FAMPAT - ©Questel

Title

(WO200201536)

Obstetrics training aid

Images



Publication data including kind & date

GB0013770

D0 2000-07-26

GB200013770

WO200201536

A1 2002-01-03

WO200201536

AU6252301

A 2002-01-08

AU200162523

GB2364423

A 2002-01-23

GB2364423



Abstract

(WO200201536)

An obstetrics training aid (10) comprises a housing (12) to simulate the lower abdomen of a female human. A flexible sac or chamber (14) within the housing (12) simulates a uterus and contains a liquid (28) to simulate amniotic fluid. A fetus-simulating body (15), which is located within the flexible chamber (14), is hollow at least within the head-simulating end part (16) and contains liquid dyed with a selected one of a plurality of coloured dyes, e.g. to simulate blood (as can arise in post-partum haemorrhage) and/or to simulate bowel contents (as can arise in foetal distress). The flexible chamber (14) also contains a bag (23) attached to body (15) and simulating a placenta and/or contains replaceable simulations of amniotic membranes to allow the training aid (10) to be used to simulate premature and artificial rupture of such membranes in real life. The housing (12) has a lower opening (18) that is provided with a flexible boundary and is to simulate a cervix. This cervix-simulating opening (18) may be covered by a removable replaceable membrane (19), simulating a perineum and upon which an episiotomy procedure may be practised by a trainee user of the aid (10). A plurality of tubular elements (20) encompass and engage the upper end of flexible chamber (14) around the upper end of fetus-simulating body (15), and valve means are provided for introducing fluid, e.g. air or water, under pressure from a cyclically variable supply - to simulate maternal contractions - into the tubular elements (20) such that they can effect a squeezing action on the rear end of the fetus-simulating body (15) and, due to the latter's curved shape, cause it to move in a direction outwardly of the cervix-simulating opening (18). A plurality of **electromagnets** (22) located at predetermined positions within the housing (12) co-operate selectively with one or more elements (24) susceptible to **magnetisation** that are attached to the fetus-simulating body (15) to effect positional changes of the foetal-simulating body (15) within the flexible chamber (14) and/or the housing (12) thereby to simulate a variety of positions and/or presentations of the fetus-simulating body (15) within the simulated uterus (14).

Inventors

MARKIEWICZ MICHAEL

DASOJU BINDU

DEVADAS DIMPLE

Latest standardized assignees - inventors removed

CYBERMEDIX

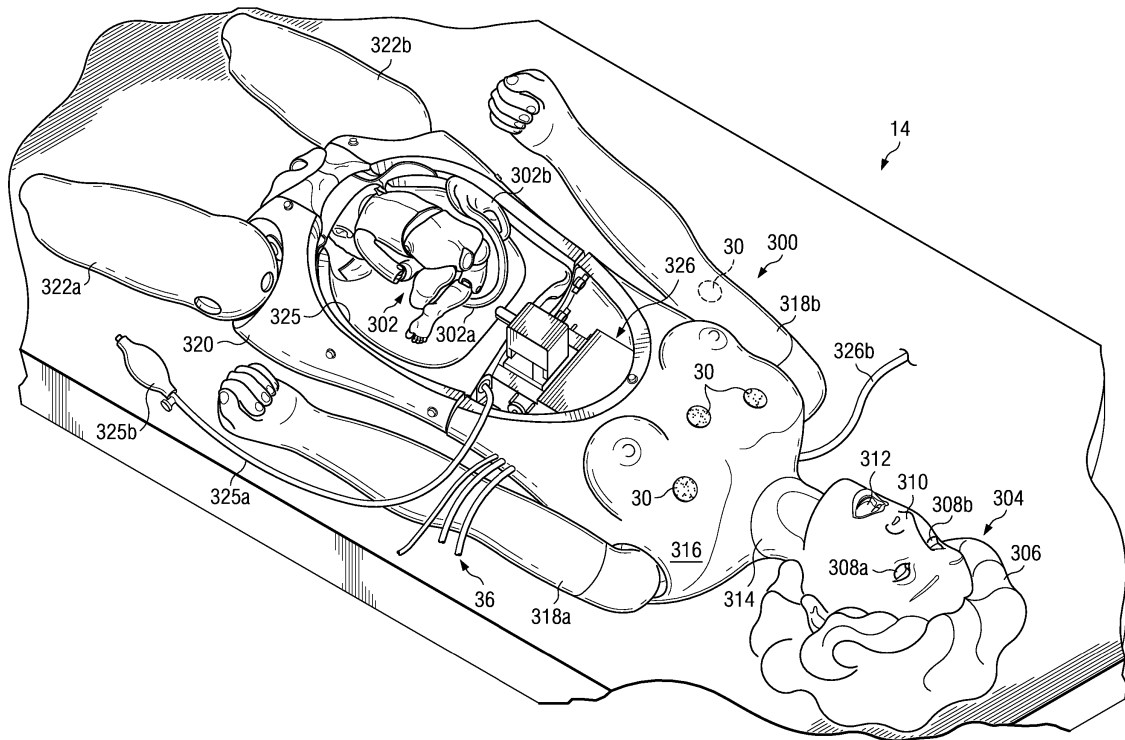
Family 4/9 - FAMPAT - ©Questel

Title

(EP2074541)

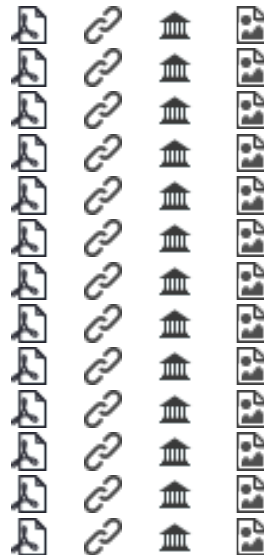
Interactive education system for teaching patient care

Images



Publication data including kind & date

US20070122785	A1	2007-05-31	US20070122785
WO2008042931	A1	2008-04-10	WO200842931
EP2074541	A1	2009-07-01	EP2074541
JP2010506217	A	2010-02-25	JP2010506217
US7811090	B2	2010-10-12	US7811090
US20100304347	A1	2010-12-02	US20100304347
US8152532	B2	2012-04-10	US8152532
US20120214145	A1	2012-08-23	US20120214145
JP5367577	B2	2013-12-11	JP5367577
US8678832	B2	2014-03-25	US8678832
US20150221237	A1	2015-08-06	US20150221237
US9406244	B2	2016-08-02	US9406244
US20180137783	A1	2018-05-17	US20180137783



Abstract

(EP2074541)

An interactive education system for teaching patient care to a user is described. The system comprises a patient simulator; a virtual instrument for use with the patient simulator in performing patient care activities; means for sensing an interaction between the virtual instrument and the simulator, and means for providing feedback to the user regarding the interaction between the virtual instrument and the simulator. In one aspect, the system includes a maternal simulator, a fetal simulator, and a neonatal simulator.

Inventors

EGGERT JOHN S

EGGERT MICHAEL S

RODRIGUEZ ALBERTO

Latest standardized assignees - inventors removed

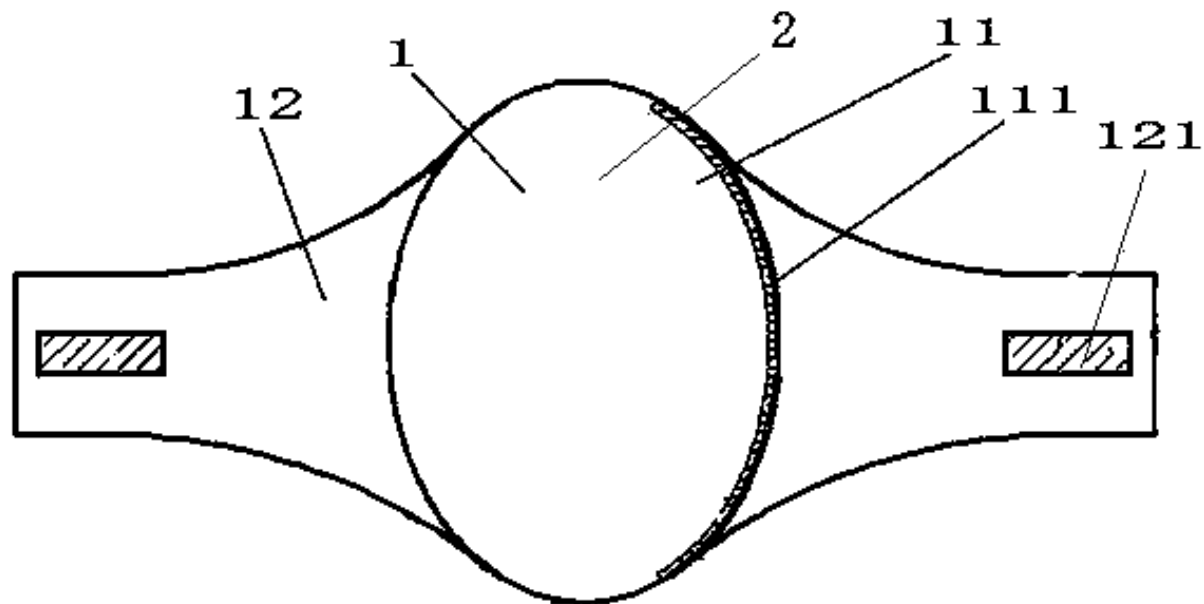
GAUMARD SCIENTIFIC

Family 5/9 - FAMPAT - ©Questel

Title

(CN204884374U)

Multi -functional portable pregnant woman's belly model

Images**Publication data including kind & date**[CN204884374](#)

U 2015-12-16 CN204884374U

**Abstract**

(CN204884374U)

The utility model discloses a multi -functional portable pregnant woman's belly model comprises belly waistband structure and emulation foetus structure, and emulation foetus structure sets up in belly waistband structure, in using, fix the waist the user through the thread gluing with the waistband, but wearing person free activity or crouch and supply inspector to carry out clinical practice in the bed, the emulation foetus is in the suspended state in the belly bag, open child heart generator, adjustable with experience foetal speed aroused in interest of emulation and number of times, when the first inductor of touching, the arm is automatic does 90 half circulatory motions along the shoulder, when touching second inductor, the shank is automatic does 90 semi -rings shape up -and -down motion along the thigh root, reach the simulation effect of foetus activity, and after the reaction is over, it can to close child heart generator. The utility model discloses simple structure carries and dresses the convenience, and it is obvious to experience the effect, and the true activity circumstances such as the interior foetus fetal movement of the real understanding pregnant woman belly of user's ability can the wide application on teaching and clinical practice.

Inventors

GAO YUXIA

HU JIEMAN

YANG RUI

DU JILI

TANG NAN

QI CHONG

GE GAOQI

WANG JINGJING

HOU RIYING

ZHANG JINYONG

Latest standardized assignees - inventors removed

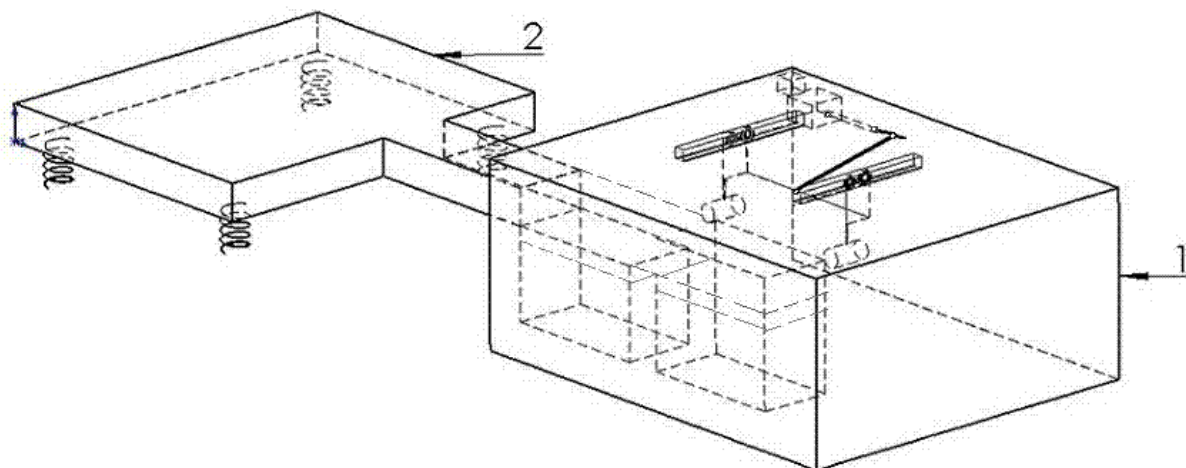
JILIN UNIVERSITY

Family 6/9 - FAMPAT - ©Questel

Title

(CN105686473)

Newborn bed imitating mother heartbeat vibration environment

Images**Publication data including kind & date**[CN105686473](#)

A

2016-06-22

CN105686473

**Abstract**

(CN105686473)

The invention provides a newborn bed imitating the mother heartbeat vibration environment according to the heartbeat frequency and the vibration amplitude of people. The newborn bed comprises a heartbeat-imitating vibrating device and a vibrating sensing device. The newborn bed is characterized in that the heartbeat-imitating vibrating device is composed of a speed reducing motor, turning transmission devices, swinging hammers, vibrating drums and a device shell; the vibrating sensing device is composed of a vibrating sensing rod and a vibrating inducting mattress; the rotational movement of the speed reducing motor is converted into the linear reciprocating movement through the turning transmission devices, and the swinging hammers knock on the vibrating drums at the heartbeat frequency accordingly; vibration feelings at the imitated heartbeat frequency and with the vibration amplitude are transmitted to the vibrating inducting mattress through the vibrating sensing rod, vibration imitating the mother heartbeat and the heartbeat frequency generated by the heartbeat-imitating vibrating device are used, newborns feel the slight variation of the environment accordingly, the newborns are easy and comfortable, and the condition for the newborns to acclimatize the environment gradually is provided.

Inventors

ZHAI FENGPING

Family 7/9 - FAMPAT - ©Questel

Title

(CA2581439)

Life augmentation

Publication data including kind & date[CA2581439](#)

A1

2008-09-26

CA2581439

**Abstract**

(CA2581439)

I. We could also produce blood artificially. II. Artificial Grown Organs and Limbs. III. Synthetic Human (Or animal). IV. ENDORPHIN PRODUCTION. V. CYBORG. VI. Back Pack Computer/Artificial Intelligence. VII. The objective is to create a Robot that is as agile at motor functions as humans. VIII. Robot/computer/Artificial Intelligence Kitchen Aid.

Inventors

VOON GERARD

Family 8/9 - FAMPAT - ©Questel

Title

(EP2471907)
Placental stem cell populations

Images

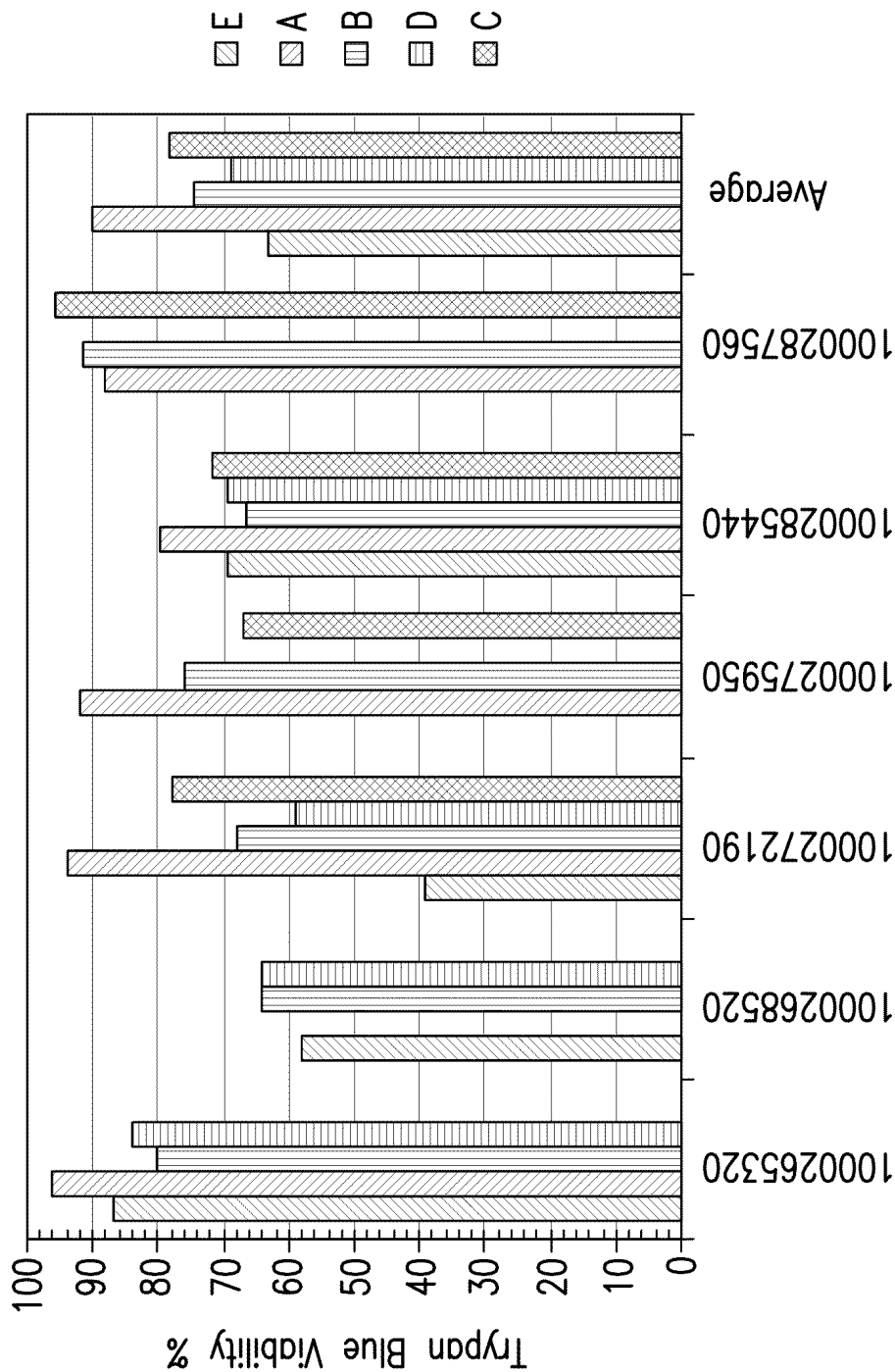


FIG.1

Publication data including kind & date

CA2957336	A1	2007-07-12	CA2957336
WO2007079183	A2	2007-07-12	WO200779183
CA2635253	A1	2007-07-12	CA2635253
AU2006332678	A1	2007-07-12	AU2006332678
WO2007079183	A3	2007-11-15	WO200779183
US20080032401	A1	2008-02-07	US20080032401
PE01462008	A1	2008-02-11	PE200800146



KR20080081083	A	2008-09-05	KR20080081083				
EP1976977	A2	2008-10-08	EP1976977				
IL192457	A	2009-02-11	IL-192457				
CN101395266	A	2009-03-25	CN101395266				
JP2009521929	A	2009-06-11	JP2009521929				
US20100297689	A1	2010-11-25	US20100297689				
NZ569562	A	2012-04-27	NZ-569562				
US8202703	B2	2012-06-19	US8202703				
EP2471906	A2	2012-07-04	EP2471906				
EP2471907	A2	2012-07-04	EP2471907				
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EP2471905	A3	2012-10-31	EP2471905				
EP2471904	A3	2012-10-31	EP2471904				
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IL223194	A	2012-12-31	IL-223194				
IL223156	A	2012-12-31	IL-223156				
US20130022581	A1	2013-01-24	US20130022581				
US20130028871	A1	2013-01-31	US20130028871				
ZA201004182	B	2013-02-27	ZA201004182				
EP2471903	A3	2013-02-27	EP2471903				
CN103060263	A	2013-04-24	CN103060263				
JP2013099343	A	2013-05-23	JP2013099343				
NZ595786	A	2013-05-31	NZ-595786				
CN103146640	A	2013-06-12	CN103146640				
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CN103525758	A	2014-01-22	CN103525758				
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US20140377230	A1	2014-12-25	US20140377230				
IL223194	B	2015-05-31	IL-223194				
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EP1976977	B1	2015-07-08	EP1976977				
US9078898	B2	2015-07-14	US9078898				
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NZ622377	A	2015-10-30	NZ-622377				
KR101585241	B1	2016-01-13	KR101585241				
CN103060263	B	2016-03-16	CN103060263B				
MX338534	B	2016-04-21	MX-338534				
IL243876	A	2016-04-21	IL-243876				
US20160129048	A1	2016-05-12	US20160129048				
HK1184817	A1	2016-08-26	HK1184817				

CA2635253	C	2017-03-14	CA2635253				
KR101722577	B1	2017-04-03	KR101722577				
KR20170037689	A	2017-04-04	KR20170037689				
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NZ712789	A	2017-06-30	NZ-712789				
CN103525758	B	2018-02-13	CN103525758B				
EP2471903	B1	2018-02-14	EP2471903				
PT2471903	T	2018-05-18	PT2471903T				
DK2471903	T3	2018-05-28	DK2471903T				
ES2671355	T3	2018-06-06	ES2671355				
CN101395266	B	2018-06-15	CN101395266B				

Abstract

(EP2471907)

The present invention provides placental stem cells and placental stem cell populations, and methods of culturing, proliferating and expanding the same. The invention also provides methods of differentiating the placental stem cells. The invention further provides methods of using the placental stem cells in assays and for transplanting.

Inventors

ABRAMSON SASCHA DAWN

EDINGER JAMES W

FALECK HERBERT

HARIRI ROBERT J

LABAZZO KRISTEN S

PERIERA MARIAN

WANG JIA-IUN

YE QIAN

Latest standardized assignees - inventors removed

CELULARITY

Family 9/9 - FAMPAT - ©Questel

Title

(CA2629555)

Related/overlapping innovations in health/energy/transport/farming and infrastructure

Publication data including kind & date

CA2629555	A1	2009-11-14	CA2629555			
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Inventors

VOON GERARD

32 Documents

Publication numbers	Title	Current assignees
GB9912504 D0	Electronic foetal heart simulator	VIAMED
WO200939210 A2	Obstetrics simulation and training method and system	US ARMY
WO9315805 A1	Doll playset having simulated fetal kicking and heartbeat	MATTEL
CN105405343 A	Fetal position detection simulation device	TIANJIN TIANYAN TECHNOLOGY
WO200976145 A2	Interactive education system for teaching patient care	GAUMARD SCIENTIFIC, ...
WO200296288 A1	System for detection and analysis of material uterine, maternal and fetal cardiac and fetal brain activity	REPRODUCTIVE HEALTH TECHNOLOGIES
CN107693008 A	Fetus electrocardio generator	BEIJING UNIVERSITY OF TECHNOLOGY
US20110311956 A1	Interactive education system for teaching patient care	GAUMARD SCIENTIFIC
US20070122785 A1	Interactive education system for teaching patient care	GAUMARD SCIENTIFIC
US20080131855 A1	Interactive education system for teaching patient care	GAUMARD SCIENTIFIC
US4411629 A	Palpation and auscultation teaching method and apparatus	VOIGHTS DORA L
US3822486 A	Dynamic childbirth simulator for teaching maternity patient care	UNIVERSITY OF KENTUCKY RESEARCH FOUNDATION
CN107862967 A	High-emulation obstetric surgical simulated training standardized patient	YINGKOU GUIDONG MEDICAL EQUIPMENT MANUFACTURING
CN107411736 A	Fetal electrocardiogram signal detecting system	Guo Ying, ...
WO200154573 A1	Fetal pulse oximetry	GENERAL HOSPITAL, ...
CN104700699 A	Teaching model for abdominal examination skill training during pregnancy	LI XINBEN
US20140212863 A1	Pregnant abdominal system and associated devices, systems, and methods	GAUMARD SCIENTIFIC
WO2011103167 A2	Interactive education system with physiological modeling	GAUMARD SCIENTIFIC
US20040220125 A1	Biosynthetic platform for cardioprotective gene expression using neonatal immature and fetal heart tissue	HOSPITAL FOR SICK CHILDREN
CA2050327 A1	Toy fetal life sounds monitor	BETHURUM KATHY N, ...
CN103617761 A	High-precision multi-tissue simulation fetal model	BEIJING UNIVERSITY OF CHEMICAL TECHNOLOGY, ...
CN103371852 A	Remote wireless fetus monitoring system	GUANGZHOU BEIHUJIA MEDICAL TECHNOLOGY
CN202332040U U	Wearable abdomen examination teaching model for third trimester of pregnancy	JILIN UNIVERSITY

Publication numbers	Title	Current assignees
CN101627907 A	Device and method for analyzing and processing electrocardiograph signal	SHENZHEN DIMEITAI DIGITAL MEDICAL TECHNOLOGY
CN205508238U U	Analogue means is detected to position of a foetus	TIANJIN TIANYAN TECHNOLOGY
CN204480570U U	Skill training and teaching model for abdominal examination during duration of pregnancy	NINGBO HEALTH PROFESSIONAL TECHNICAL COLLEGE
CN204884374U U	Multi -functional portable pregnant woman's belly model	JILIN UNIVERSITY
CN204143740U U	Multiple pregnancy test model	JINAN CENTRAL HOSPITAL
US4947832 A	Apparatus and method for treating or relieving colicky infants	VARTA BATTERIE
CN201662926U U	Pregnant woman model available for auscultation and palpation	TELLYES
FR1232011 A	Method and apparatus facilitating DELIVERY SIMULATOR	
CN2614368U Y	Pregnant woman model capable of auscultation and palpation	XIAO FEI LIU

drive electronics for the transducer include a processor with associated memory in which is stored digital information from which various different waveforms can be reproduced. These waveforms may be either simple test waveforms or complex waveforms representative of a **foetal** heart beating normally abnormally and in the latter case, the waveforms include both a low frequency component and a high frequency component so that the monitor can provide the usual audible signal representative of a **foetal** heart beat and can monitor the high frequency signal from which the particular nature of the **foetal** heart beat can be assessed, in particular whether any distress conditions are extant. <IMAGE>

Inventors

BROUGH DAVID

SCOTT LESLIE ARTHUR

Latest standardized assignees - inventors removed

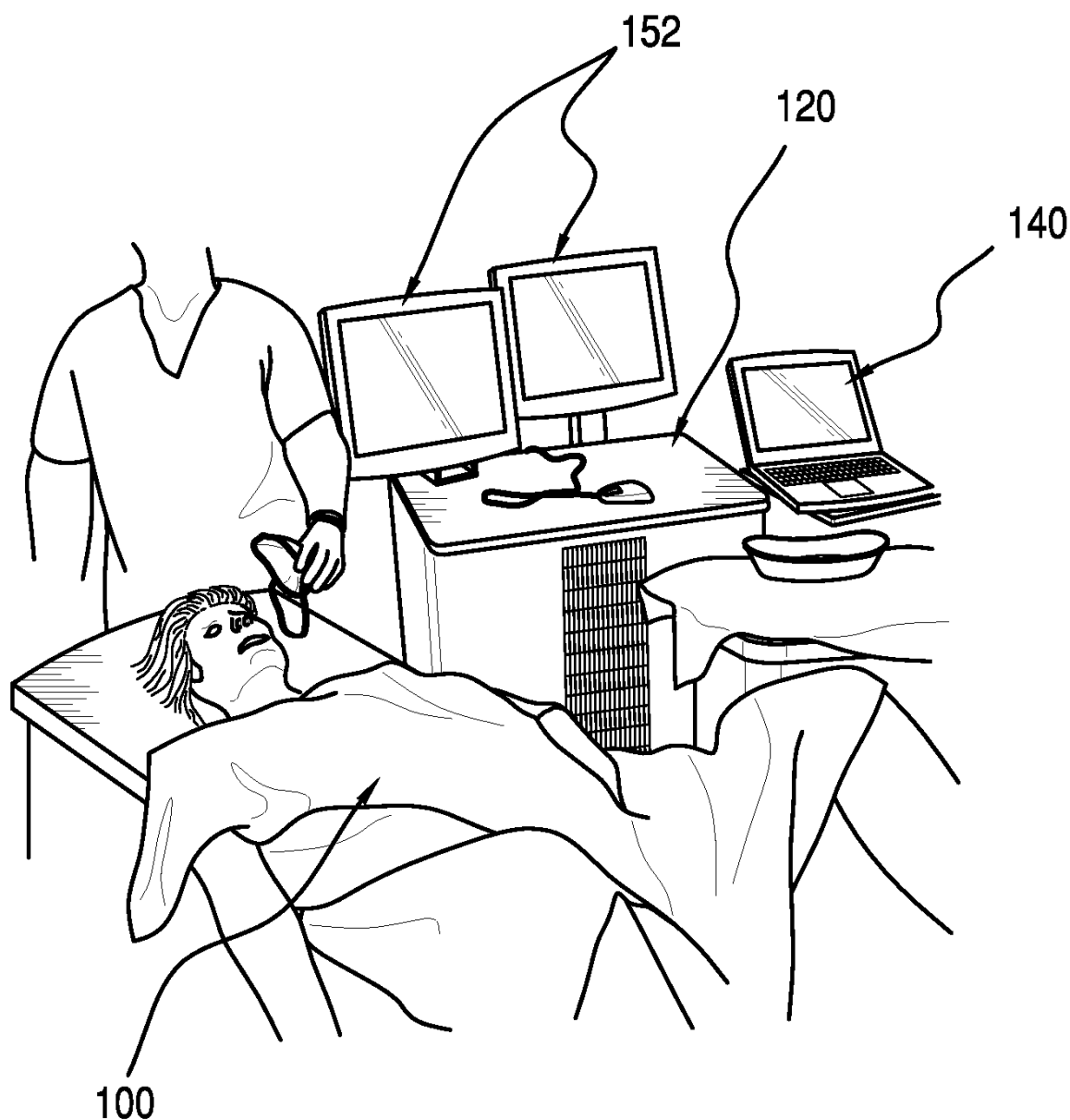
VIAMED

Family 2/32 - FAMPAT - ©Questel

Title

(EP2193514)

Obstetrics simulation and training method and system

Images

AU2008302348	A1	2009-03-26	AU2008302348				
WO2009039210	A3	2009-06-25	WO200939210				
WO2009039210	A9	2010-02-25	WO200939210				
EP2193514	A2	2010-06-09	EP2193514				
IN0070/MUMNP/2010	A	2010-06-25	IN2010MN00070				
US20100227303	A1	2010-09-09	US20100227303				
JP2010539552	A	2010-12-16	JP2010539552				
US20110189641	A1	2011-08-04	US20110189641				
US7997904	B2	2011-08-16	US7997904				
EP2193514	A4	2011-12-28	EP2193514				
US8323032	B2	2012-12-04	US8323032				

Abstract

(EP2193514)

In the modern practice of obstetrics, the military is in the position of having experts in both simulation training for obstetric emergencies and teamwork training. The military has the potential to train better and provide the safest environment possible with these resources. Accordingly, an embodiment of the invention provides an obstetrics simulation system, comprising an articulating maternal birthing simulator. The maternal birthing simulator is a full size and full-body female having an intubeable airway with a chest rise component, a forearm having a medication receiving component, and/or a **fetal** heart sound component. Additionally, the maternal birthing simulator includes a head descent and cervical dilation monitor, a placenta positionable in at least two locations, two or more removable dilating cervices, and/or postpartum vulval suturing inserts.

Inventors

DEERING SHAD H

Latest standardized assignees - inventors removed

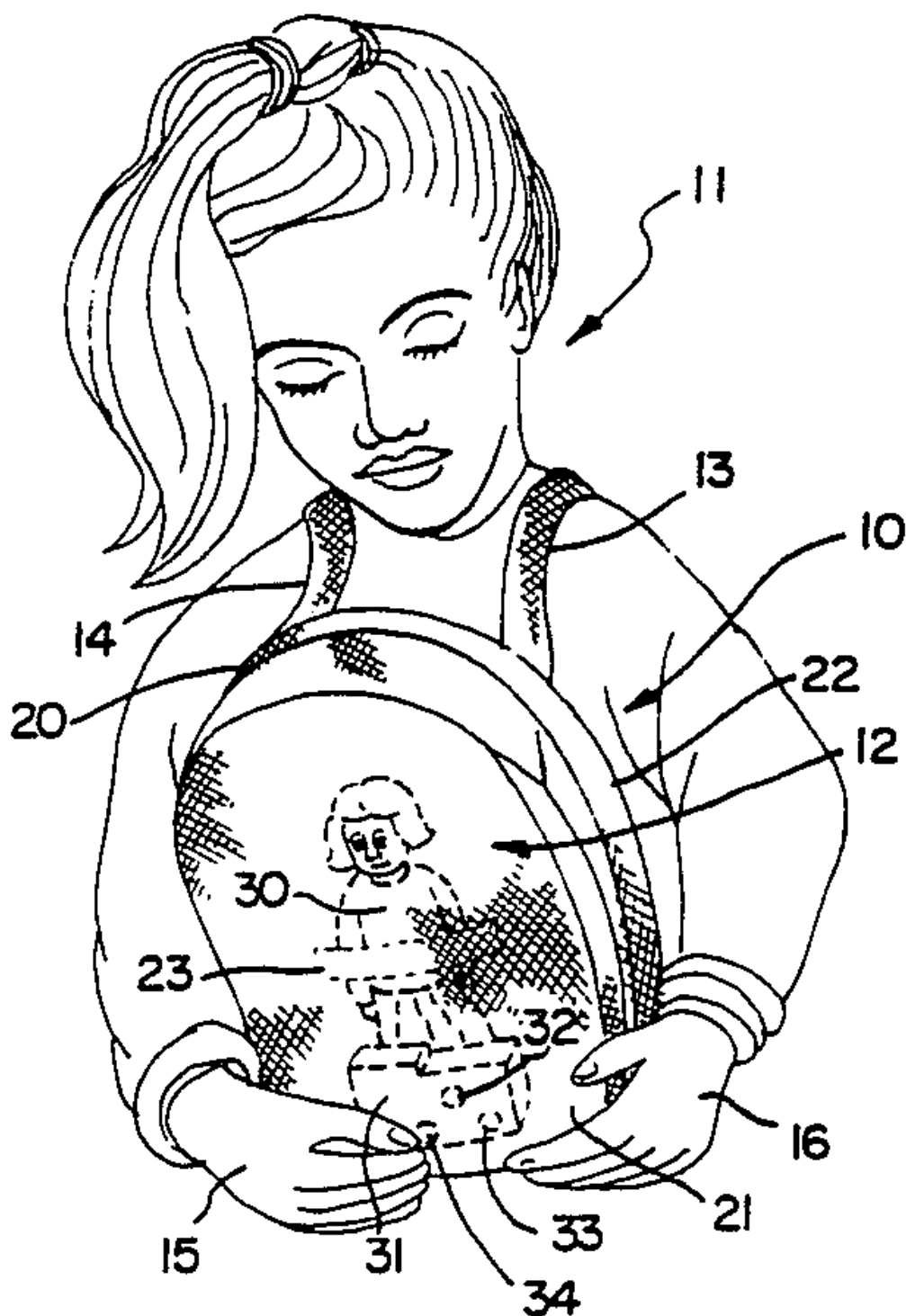
US ARMY

Family 3/32 - FAMPAT - ©Questel

Title

(WO9315805)

Doll playset having simulated **fetal** kicking and heartbeat**Images**



Publication data including kind & date

WO9315805	A1	1993-08-19	WO9315805
MX9300570	A	1993-09-01	MX9300570
US5256098	A	1993-10-26	US5256098



Abstract

(WO9315805)

A doll playset includes a padded cloth pouch (12) having an interior within which a small doll heartbeat and kick simulating unit (30) are received and supported. A pair of shoulder straps (13, 14) are secured to the pouch to facilitate the wearing of the pouch on the front abdominal area of a child user. The heartbeat and kick simulator includes a motor (60) driven mechanism which produces undulating motion of a pair of kick simulating buttons (32, 33) supported upon the front surface (31) of the simulator. A triangular cam (80) is coupled to the undulating mechanism to provide flexing of an elongated

resilient sounder (81) resulting in a heartbeat-like sounds when the unit is activated. A push button (34) is supported upon the front surface of the simulator and may be depressed to operate the unit from the exterior of the cloth pouch.

Inventors

SMITH ROBIN K

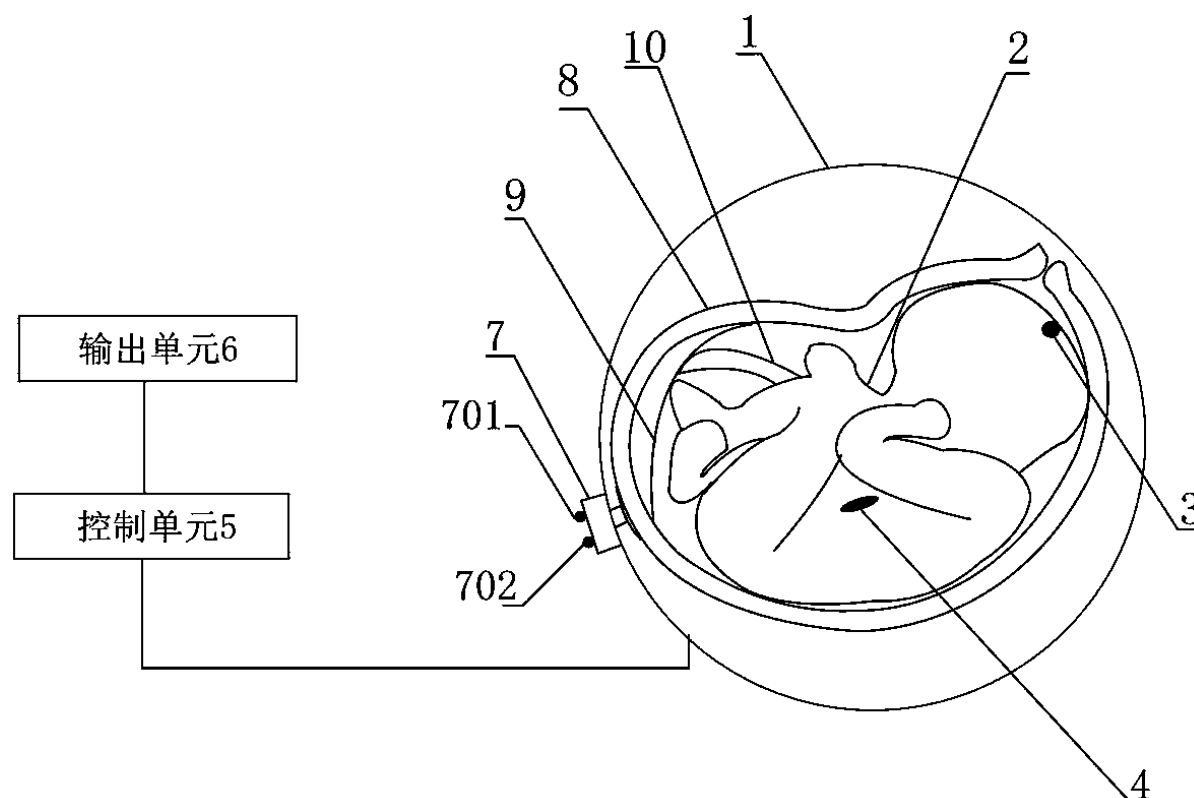
Latest standardized assignees - inventors removed

MATTEL

Family 4/32 - FAMPAT - ©Questel

Title

(CN105405343)

Fetal position detection simulation device**Images****Publication data including kind & date**[CN105405343](#)

A 2016-03-16 CN105405343

**Abstract**

(CN105405343)

The invention provides a **fetal** position detection simulation device which comprises a pregnant woman belly module, a simulation **fetus** arranged in the uterus of the belly of a pregnant woman and an output unit. The **fetal** position detection simulation device is characterized in that the head of the simulation **fetus** is provided with a position sensor, and the heart of the simulation **fetus** is provided with a **fetus** sound player; the **fetal** position detection simulation device further comprises a control unit connected with the position sensor and the **fetus** sound player, and the control unit receives information collected by the position sensor and feeds the information back to the output unit; the **fetal** position detection simulation device further comprises a rotation device for adjusting and simulating change of the position of the simulation **fetus** at different positions of the uterus; the pregnant woman belly module is a hollow cavity and used for containing a simulation uterus and a simulation placenta; by means of the **fetal** position detection simulation device, position change of the simulation **fetus** can be detected in an ultrasound mode, the **fetus** sound of the simulation **fetus** is listened to through a simulation stethoscope, and different positions of the simulation **fetus** in the simulation uterus can be controlled automatically.

Inventors

LIU TINGTING

Hu Zhihui

ZHOU QIANG

LI ZHENG

Pu Yulong

LÜ DONGLIANG

HUANG CHENGWEI

ZHANG YONGSHENG

Guan Wenhuan

CHEN JUGUO

MA YANHUI

LI MINGMING

Latest standardized assignees - inventors removed

TIANJIN TIANYAN TECHNOLOGY

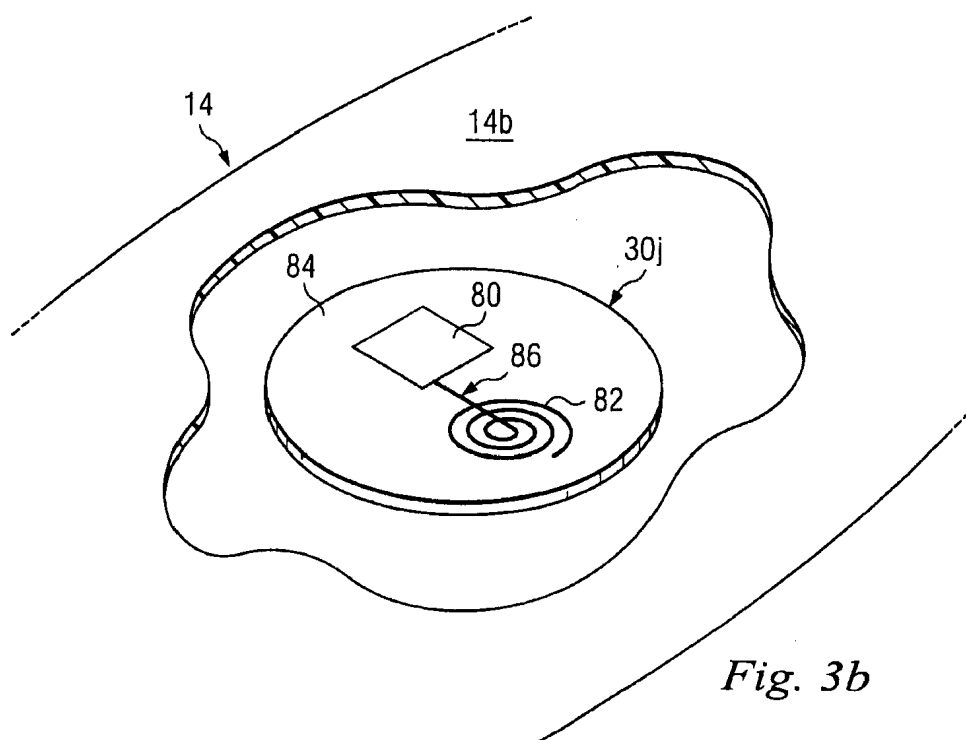
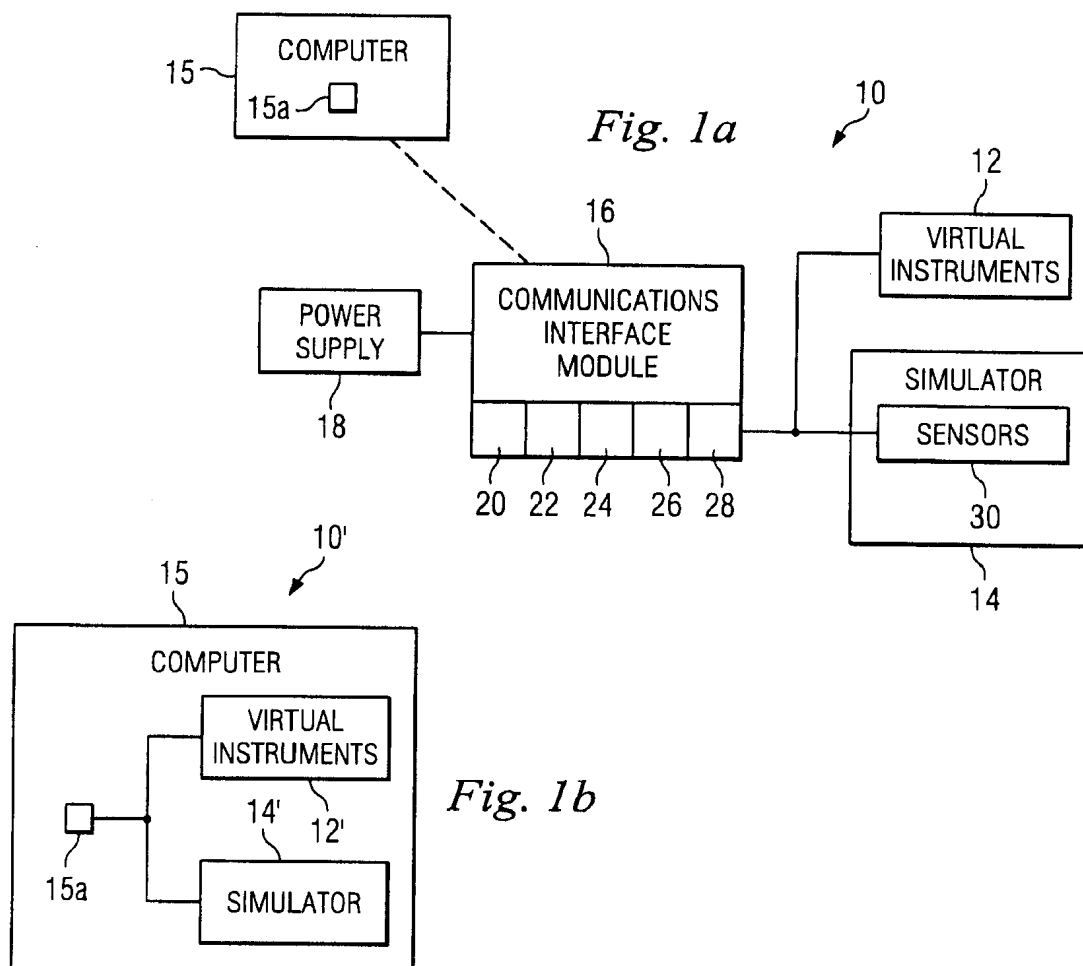
Family 5/32 - FAMPAT - ©Questel

Title

(EP2229670)

Interactive education system for teaching patient care

Images


Publication data including kind & date

WO2009076145	A2	2009-06-18	WO200976145
WO2009076145	A3	2009-08-27	WO200976145
EP2229670	A2	2010-09-22	EP2229670
JP2011507017	A	2011-03-03	JP2011507017
JP2012108528	A	2012-06-07	JP2012108528
JP5879468			



EP2229670 B2 2016-03-08 JP5879468
B1 2017-05-10 EP2229670



Abstract

(EP2229670)

Patient simulators, methods, and systems for teaching patient care are provided. The patient simulators and systems include one or more patient bodies comprising one or more simulated body portions. A respiratory system is positioned within the patient body. The respiratory system includes a pair of lungs and is configured to simulate a respiratory pattern of a patient. A circulatory system is also positioned within the patient body. The circulatory system is configured to simulate at least one circulatory parameter of the patient. The system also includes a control system in communication with the patient simulator. The control system includes a respiratory physiological model for controlling the simulated respiratory pattern of the respiratory system and a circulatory physiological model for controlling the at least one circulatory parameter of the circulatory system. The respiratory physiological model is configured to adjust the simulated respiratory pattern of the respiratory system at least partially based on a treatment administered to the patient simulator by a user. The patient simulator is operable without physical connection to an external device. In some instances, the systems include both a maternal simulator and a fetal simulator, wherein the physiological conditions of the maternal and fetal simulators are linked to one another.

Inventors

EGGERT JOHN S
EGGERT M D MICHAEL S
RODRIGUEZ ALBERTO

Latest standardized assignees - inventors removed

GAUMARD SCIENTIFIC
JIANG NING

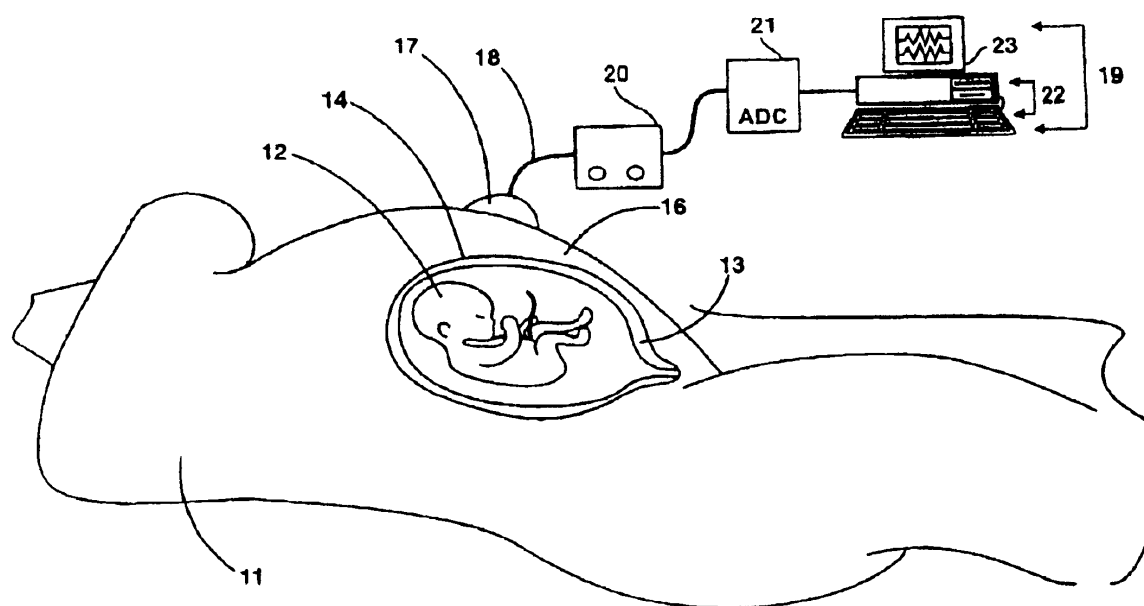
Family 6/32 - FAMPAT - ©Questel

Title

(WO200296288)

System for detection and analysis of maternal uterine, maternal and fetal cardiac and fetal brain activity

Images



Publication data including kind & date

WO02096288 A1 2002-12-05 WO200296288



US20020193670	A1	2002-12-19	US20020193670
CN1520272	A	2004-08-11	CN1520272
US6816744	B2	2004-11-09	US6816744
CN1287729	C	2006-12-06	CN1287729C

**Abstract**

(WO200296288)

The present invention presents a method and apparatus for recording and analyzing uterine electrical activity, or electromyography (EMG), from the surface of the abdomen, vagina, or cervix of a patient for the purpose of diagnosing contractile patterns of the uterus in pregnant and non-pregnant women, as well as for monitoring maternal and fetal ECG and fetal brain activity. The method and apparatus described include methods for the systematic detection, analysis, characterization and communication of information about electrical signals recorded from the abdominal/vaginal/cervical surface. The present invention provides data analysis techniques for analyzing the electrical data measured from the surface of a patient to characterize their uterine, abdominal, and cardiac muscle activity, as well as cardiac and brain activity of the fetus simultaneously or separately. These techniques and apparatus are appropriate for use in a clinic or through landline or wireless communication for use as a remote or home uterine/fetal monitoring system.

Inventors

GARFIELD ROBERT E

MANER WILLIAM L

Latest standardized assignees - inventors removed

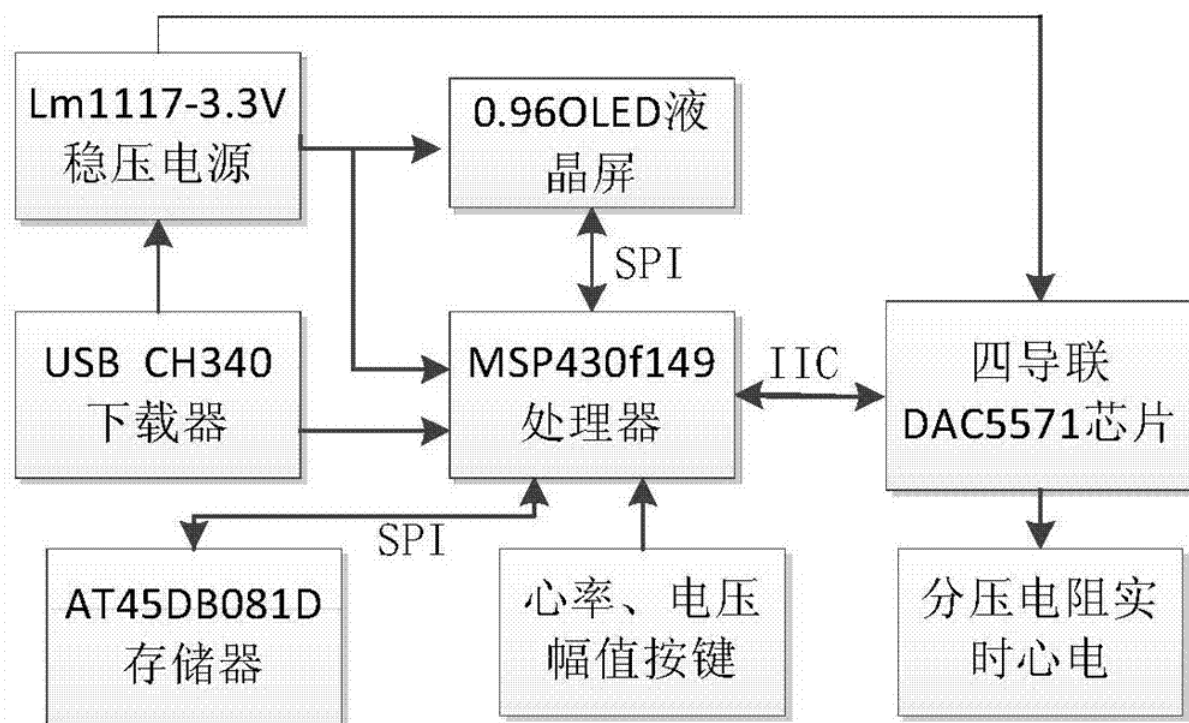
REPRODUCTIVE HEALTH TECHNOLOGIES

Family 7/32 - FAMPAT - ©Questel

Title

(CN107693008)

Fetus electrocardio generator

Images**Publication data including kind & date**

CN107693008 A 2018-02-16 CN107693008

**Abstract**

(CN107693008)

The invention provides a fetus electrocardio generator. The problem that the fetus electrocardio simulation instruments are

insufficient and expensive is solved. According to the technical scheme, the fetus electrocardio generator is composed of a pregnant woman abdomen three-lead electrocardio generation circuit and a single-lead fetus electrocardio generation circuit. An electrocardio data source is a DalSy database, Lieven De Lathauwer provides data for the DalSy database, first three channels of data and fetus electrocardio data from the 1501th point to the 2500th point which is extracted by an algorithm are adopted to add loop statements and are output, the segment of data comprises part mixing and complete mixing of fetus electrocardio and parent body electrocardio, and accordingly the data representativeness is guaranteed. By adopting an unconditional circulation mode, through IIC communication, the data is transmitted to a digital-to-analog conversion chip DAC5571, the digital-to-analog conversion chip DAC5571 simulates and outputs pregnant woman abdomen electrocardio signals and fetus electrocardio signals, and the amplitude value of the output voltage is lower than 3 mV through a voltage division resistor. According to the fetus electrocardio generator, the electrocardio heart rate and voltage amplitude value are adjusted by slightly touching a key, and great convenience can be brought to researchers who conduct fetus electrocardio detection and processing.

Inventors

WU SHUICAI

YUAN YANCHAO

YUAN LI

HONG QIANG

LI YUN

Latest standardized assignees - inventors removed

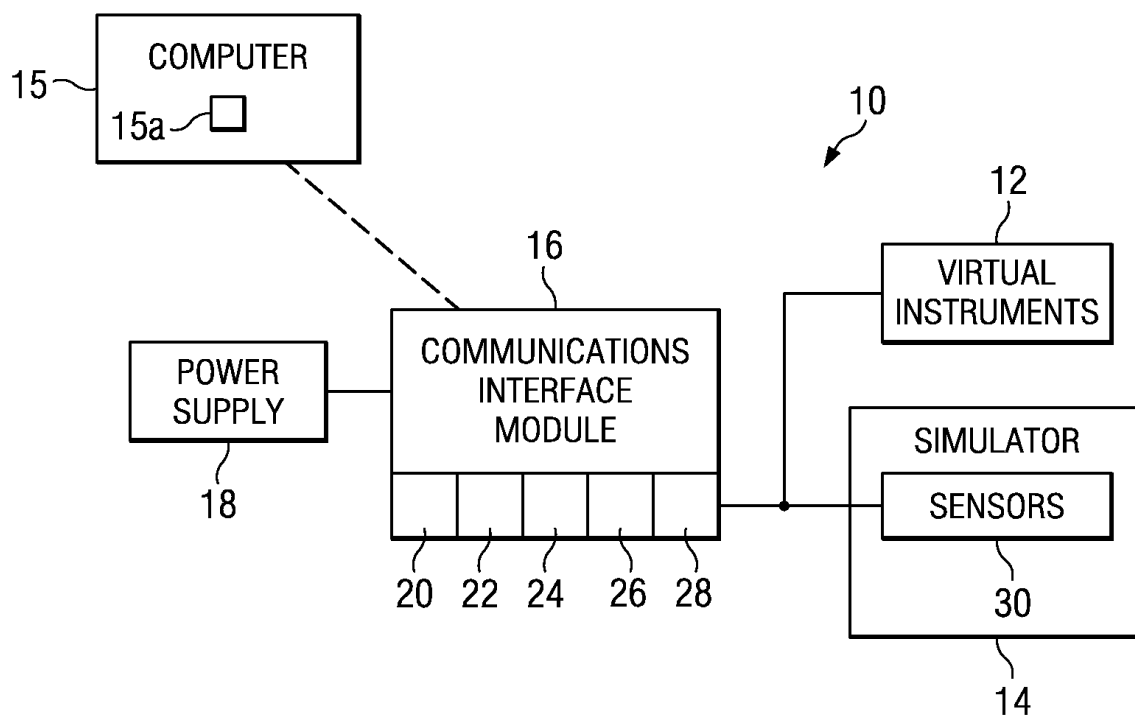
BEIJING UNIVERSITY OF TECHNOLOGY

Family 8/32 - FAMPAT - ©Questel

Title

(US8951047)

Interactive education system for teaching patient care

Images**Publication data including kind & date**[US20110311956](#) A1 2011-12-22 [US20110311956](#)[US8419438](#) B2 2013-04-16 [US8419438](#)[US20130330699](#) A1 2013-12-12 [US20130330699](#)

US8951047

B2 2015-02-10 US8951047

Abstract

(US8951047)

Simulator systems including a maternal simulator and a fetal simulator are provided. In some instances, the maternal simulator includes a chamber sized and shaped to receive a fetal simulator and a birthing mechanism disposed within the chamber for providing rotational and translational movement to the fetal simulator in a birthing simulation. In some instances, the fetal simulator is configured to be selectively, fixedly engaged with a locking mechanism of the maternal simulator such that the fetal simulator is not removable from the maternal simulator during the birthing simulation when fixedly engaged with the locking mechanism and the fetal simulator is removable from the maternal simulator during birthing simulation when not fixedly engaged with the locking mechanism.

Inventors

EGGERT JOHN S

EGGERT MICHAEL S

RODRIGUEZ ALBERTO

Latest standardized assignees - inventors removed

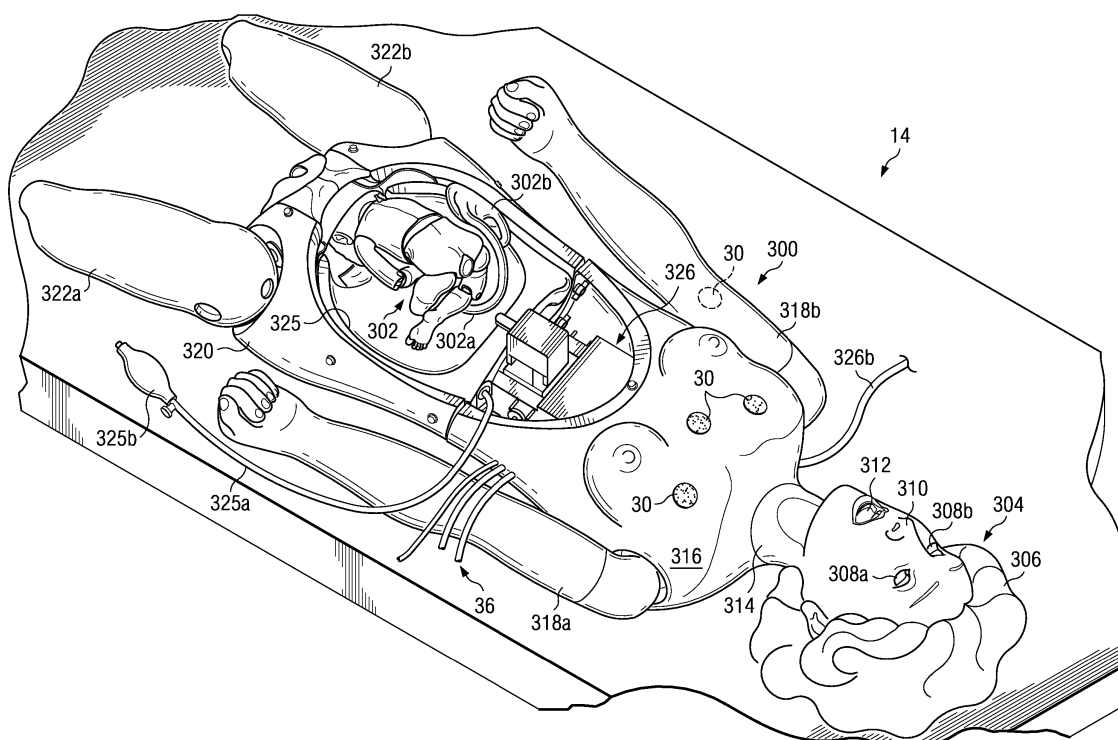
GAUMARD SCIENTIFIC

Family 9/32 - FAMPAT - ©Questel

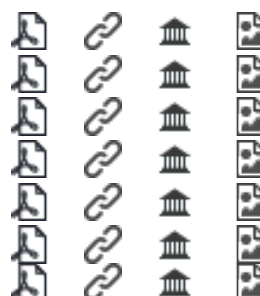
Title

(EP2074541)

Interactive education system for teaching patient care

Images**Publication data including kind & date**

US20070122785	A1	2007-05-31	US20070122785
WO2008042931	A1	2008-04-10	WO200842931
EP2074541	A1	2009-07-01	EP2074541
JP2010506217	A	2010-02-25	JP2010506217
US7811090	B2	2010-10-12	US7811090
US20100304347	A1	2010-12-02	US20100304347



US8152532	B2	2012-04-10	US8152532				
US20120214145	A1	2012-08-23	US20120214145				
JP5367577	B2	2013-12-11	JP5367577				
US8678832	B2	2014-03-25	US8678832				
US20150221237	A1	2015-08-06	US20150221237				
US9406244	B2	2016-08-02	US9406244				
US20180137783	A1	2018-05-17	US20180137783				

Abstract

(EP2074541)

An interactive education system for teaching patient care to a user is described. The system comprises a patient simulator; a virtual instrument for use with the patient simulator in performing patient care activities; means for sensing an interaction between the virtual instrument and the simulator, and means for providing feedback to the user regarding the interaction between the virtual instrument and the simulator. In one aspect, the system includes a maternal simulator, a fetal simulator, and a neonatal simulator.

Inventors

EGGERT JOHN S

EGGERT MICHAEL S

RODRIGUEZ ALBERTO

Latest standardized assignees - inventors removed

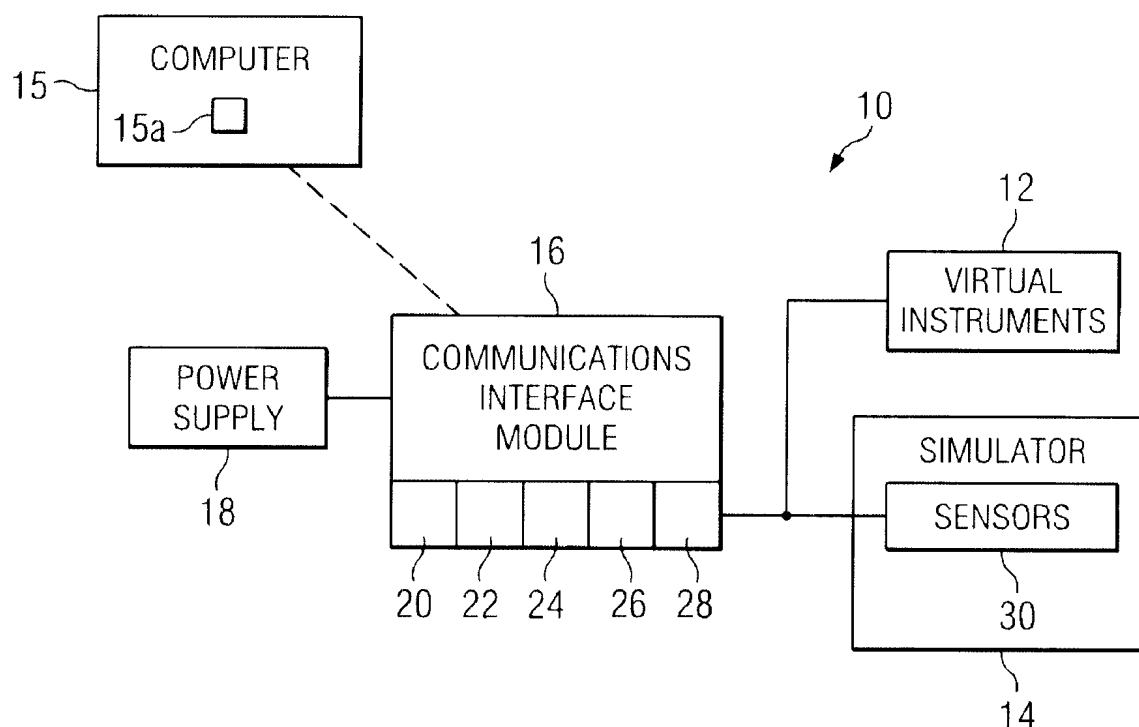
GAUMARD SCIENTIFIC

Family 10/32 - FAMPAT - ©Questel

Title

(US8696362)

Interactive education system for teaching patient care

Images**Publication data including kind & date**

US20080131855	A1	2008-06-05	US20080131855				
US20080138778	A1	2008-06-12	US20080138778				
US8016598	B2	2011-09-13	US8016598				

[US8696362](#)

B2 2014-04-15 US8696362

[US20140220529](#)

A1 2014-08-07 US20140220529

**Abstract**

(US8696362)

A method of teaching patient care is provided. The method includes providing a medical simulator including a model of at least a portion of a human body. The simulator is configured to execute a simulated medical scenario. The method also includes defining a plurality of palette items, each of the plurality of palette items associated with a physiological state of the simulator, and defining at least one scenario, the at least one scenario including a series of linked palette items. The method also includes selecting a scenario for execution by the simulator, communicating the selected scenario to the simulator, and utilizing the simulator to execute the selected scenario.

Inventors

EGGERT JOHN S

EGGERT MICHAEL S

RODRIGUEZ ALBERTO

Latest standardized assignees - inventors removed

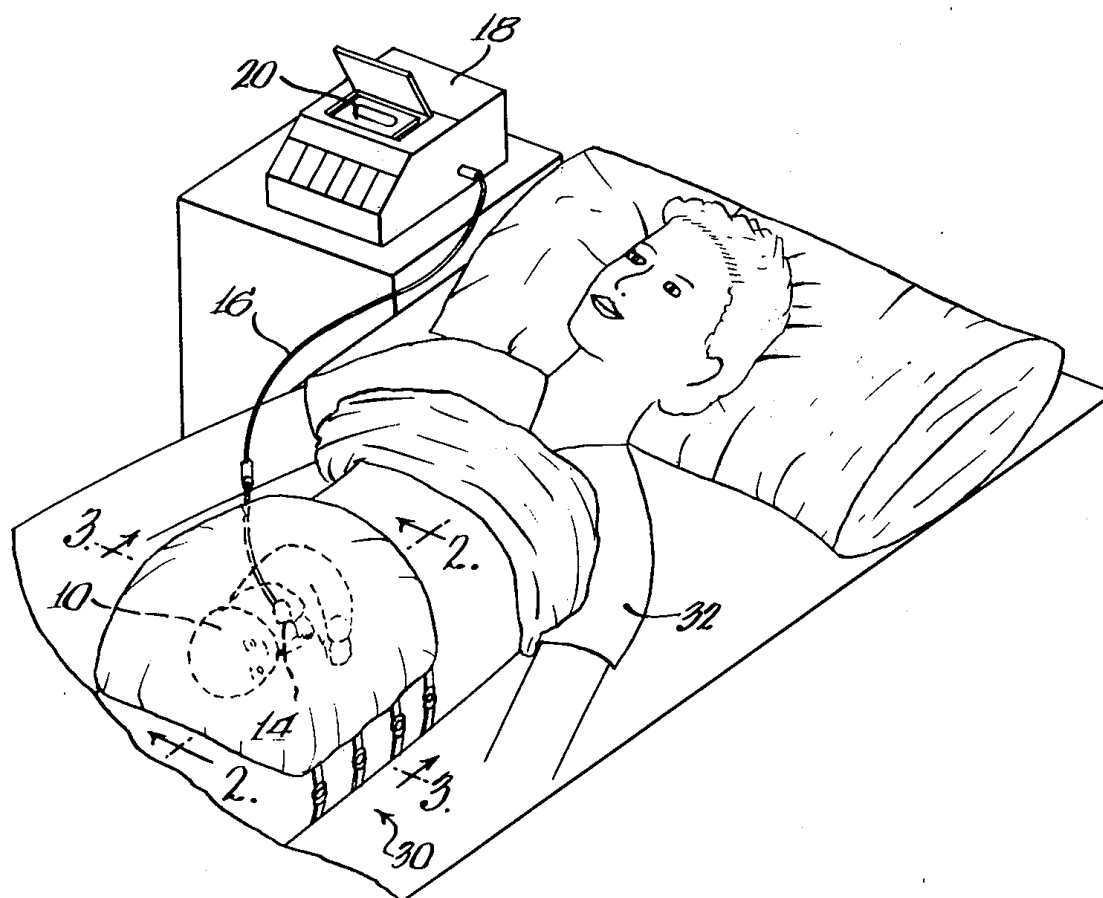
GAUMARD SCIENTIFIC

Family 11/32 - FAMPAT - ©Questel

Title

(US4411629)

Palpation and auscultation teaching method and apparatus

Images**Publication data including kind & date**[US4411629](#)

A 1983-10-25 US4411629

**Abstract**

(US4411629)

Method and apparatus for teaching students palpation and auscultation of a **fetus** in a pregnant female, comprising a **fetal** doll, a loud speaker attached to the **fetal** doll, a recording of **fetal** heart tones, means for reproducing the recording and transmitting the tones to the loud speaker, a cushion having an opening in which the **fetal** doll is inserted, filling material packed into the cushion surrounding the doll, an outer cover in which the cushion is adjustably, movably inserted, and a plurality of straps for attaching the cover containing the cushion onto a female model to simulate pregnancy; whereupon the position of the **fetal** doll may be adjusted relative to the abdomen of the model and the students guided in palpation techniques for locating and identifying the position of the **fetal** doll, and the simulated **fetal** heart tones may be varied to simulate real-life **fetal** heart conditions and the students guided in auscultation techniques for medically assessing the simulated **fetal** heart tones.

Inventors

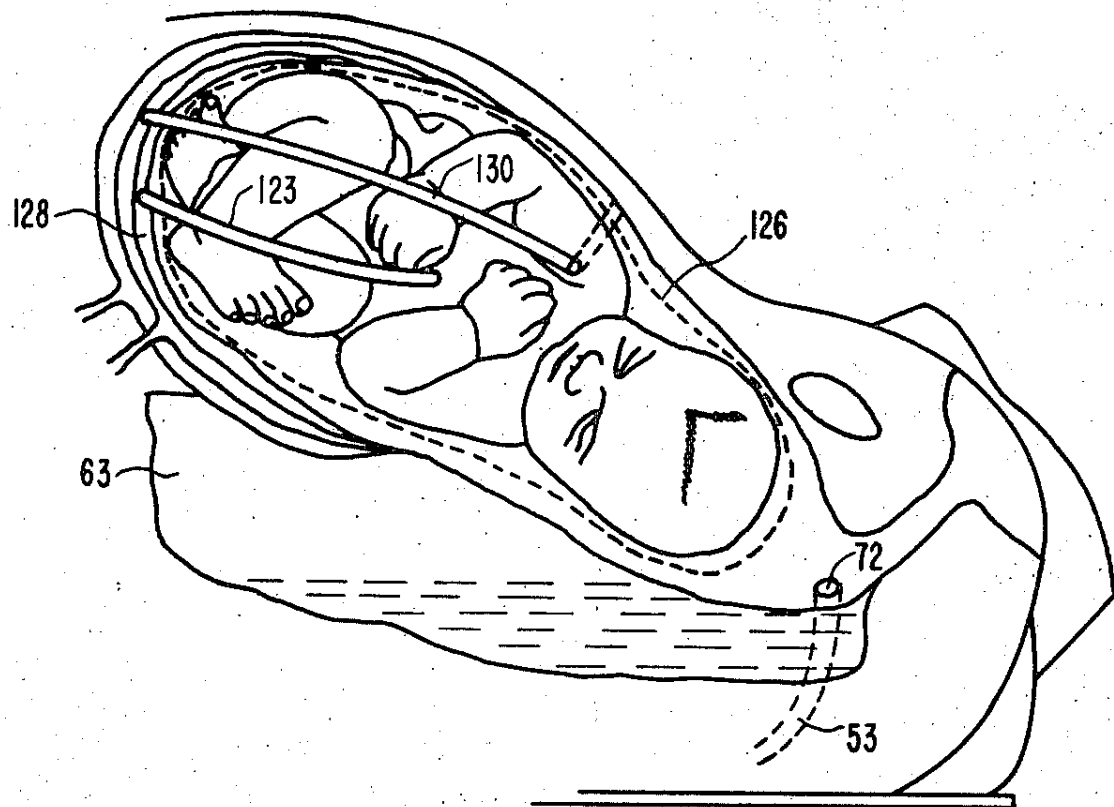
VOIGHTS DORA L

Family 12/32 - FAMPAT - ©Questel

Title

(US3822486)

Dynamic childbirth simulator for teaching maternity patient care

Images**Publication data including kind & date**[US3822486](#)

A 1974-07-09 US3822486

**Abstract**

(US3822486)

A programmable patient simulator for teaching maternity patient care includes a life size manikin with a pelvis, vaginal canal, uterus, placenta, umbilical cord, and a **fetal** doll from which heart sounds are emitted. A programmable electro-pneumatic system controls the simulated uterine contractions, position of the uterus, rupture of membranes, expulsion of **fetal** doll, and **fetal** heart rate during labor and delivery sequence. The invention described herein was made in the course of work under a grant or award from the Department of Health, Education and Welfare.

Inventors

KNAPP C

EADES G

Latest standardized assignees - inventors removed

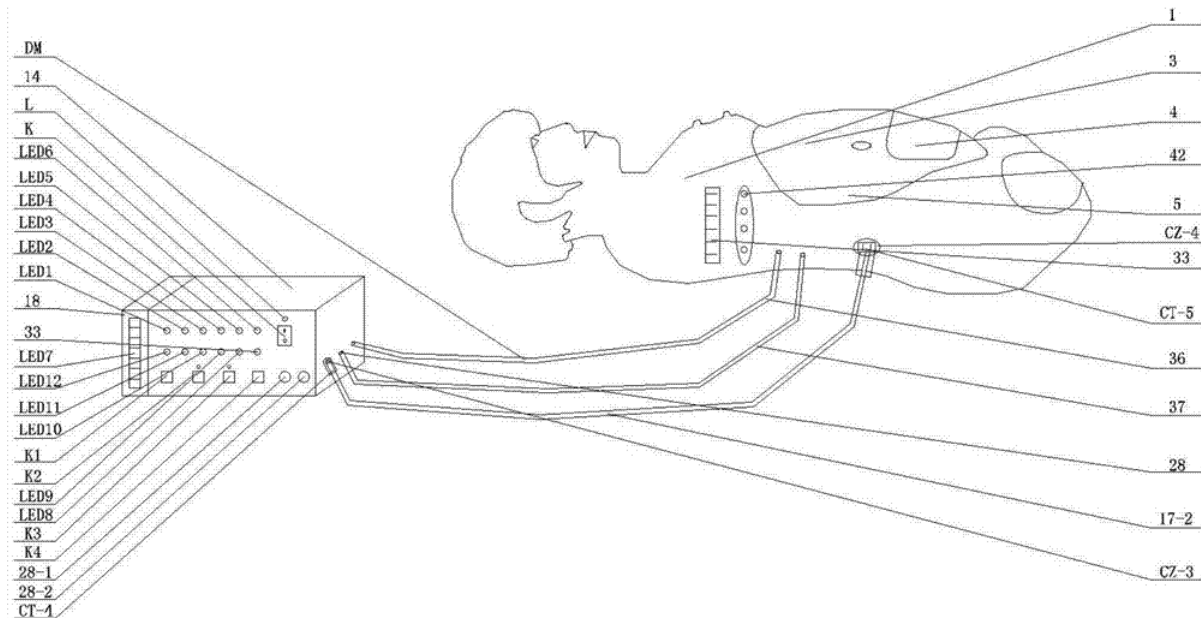
UNIVERSITY OF KENTUCKY RESEARCH FOUNDATION

Family 13/32 - FAMPAT - ©Questel

Title

(CN107862967)

High-emulation obstetric surgical simulated training standardized patient

Images**Publication data including kind & date**[CN107862967](#)

A

2018-03-30

CN107862967

**Abstract**

(CN107862967)

The invention relates to the technical field of medical educational equipment, in particular to a high-emulation obstetric surgical simulated training standardized patient, comprising a high-emulation maternal model, a late-stage pregnancy uterus, a full-term pregnancy **fetus**, a postpartum hemorrhage uterus, a placental adhesion uterus and a microcomputer controller and characterized in that a late pregnancy belly wall, a cesarean delivery belly wall, the late-stage pregnancy uterus, the placental adhesion uterus and the postpartum hemorrhage uterus which are interchangeable are provided herein, the lower uterine segment is provided with a cesarean delivery module, the lower abdomen is provided with a belly wall surgery module embedded in a recess, the uterine cavity is provided with a vessel broken end communicated with a blood pump in the microcomputer controller, and 12 normally closed and normally opened dual-unit key switches are arranged in the uterine wall and are connected with the blood pump in the microcomputer controller. The high-emulation obstetric surgical simulated training standardized patient is applicable to skill training and assessment for obstetric operations in medical colleges and hospitals, such as cesarean delivery, uterine gauze packaging hemostasis, manual removal of placenta and perineotomy, has vivid simulation effect and enables teaching effect to be significantly improved.

Inventors

WANG YAO

Latest standardized assignees - inventors removed

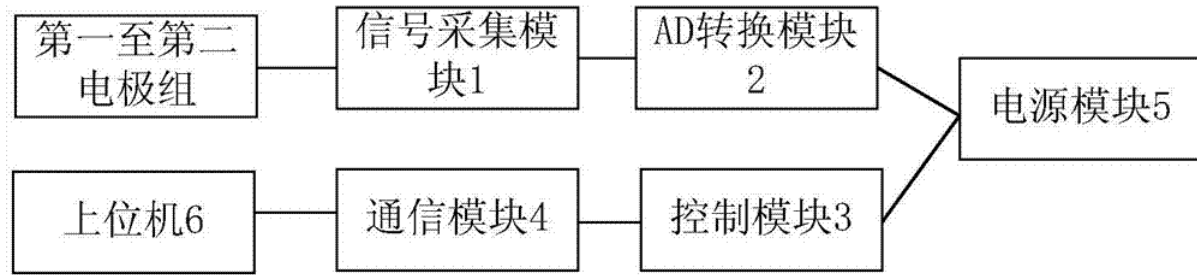
YINGKOU GUIDONG MEDICAL EQUIPMENT MANUFACTURING

Family 14/32 - FAMPAT - ©Questel

Title

(CN107411736)

Fetal electrocardiogram signal detecting system

Images**Publication data including kind & date**

CN107411736

A

2017-12-01

CN107411736

**Abstract**

(CN107411736)

The invention provides a **fetal** electrocardiogram signal detecting system. A first electrode set is arranged on a maternal shoulder part; a second electrode set is arranged on a maternal belly part, and is used for collecting a maternal belly signal; a signal acquisition module is used for acquiring the maternal belly signal and sending the maternal belly signal to an AD (Analog to Digital) conversion module; the AD conversion module is used for carrying out AD conversion on the maternal belly signal and generating the maternal belly signal in a digital signal manner; a control module is used for preprocessing and filtering the maternal belly signal and sending the maternal belly signal to a communication module; the communication module is used for forwarding the maternal belly signal to an upper computer; and the upper computer adopts a flank bipolar montage system for analyzing the maternal belly signal, and utilizes a component analysis method for separating a preliminary **fetal** electrocardiogram signal from the maternal belly signal. According to the **fetal** electrocardiogram signal detecting system provided by the invention, the weak **fetal** electrocardiogram signal can be extracted from a body surface, and the diagnosis of corresponding diseases is made according to relevant parameters of a **fetal** electrocardiogram.

Inventors

SUN BIAO

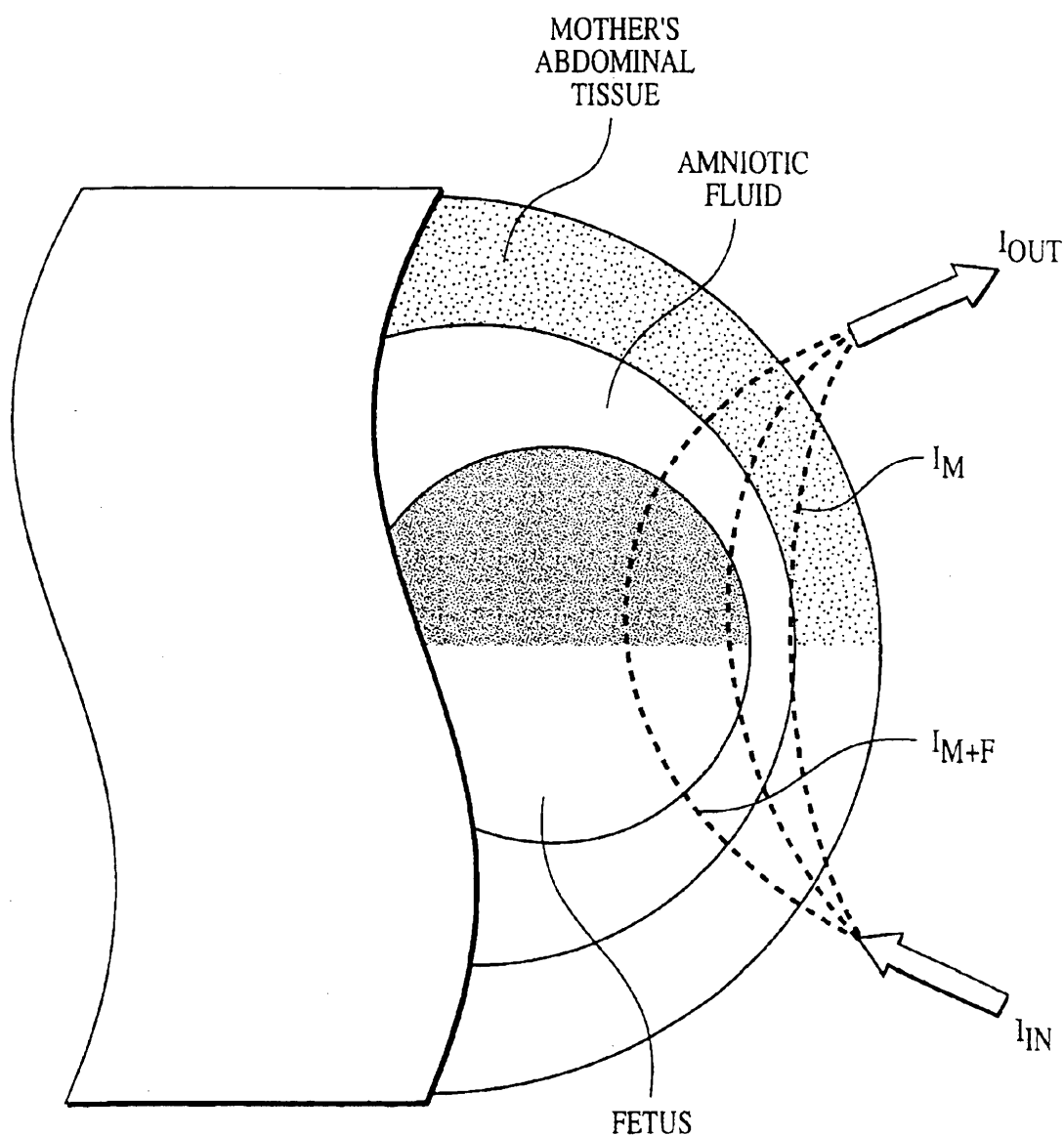
GUO YING

Family 15/32 - FAMPAT - ©Questel

Title

(EP1251770)

Fetal pulse oximetry**Images**



Publication data including kind & date

WO200154573	A1	2001-08-02	WO200154573
CA2397840	A1	2001-08-02	CA2397840
AU3459001	A	2001-08-07	AU200134590
EP1251770	A1	2002-10-30	EP1251770
US20040116789	A1	2004-06-17	US20040116789
EP1251770	A4	2005-05-25	EP1251770
US7047055	B2	2006-05-16	US7047055



Abstract

(EP1251770)

A **fetal** blood pulse oximetry method and apparatus using a first wavelength of light at about 655 to 705 nm and a second wavelength of light at about 820 to 900 nm. Measurements are taken through a mother's abdomen. Processing is performed to extract absorption information related to **fetal** arterial blood with calculation of **fetal** oxygen saturation from the extracted data.

Inventors

BOAS DAVID ALAN

ZOURABIAN ANNA

Latest standardized assignees - inventors removed

GENERAL HOSPITAL

TUFTS UNIVERSITY

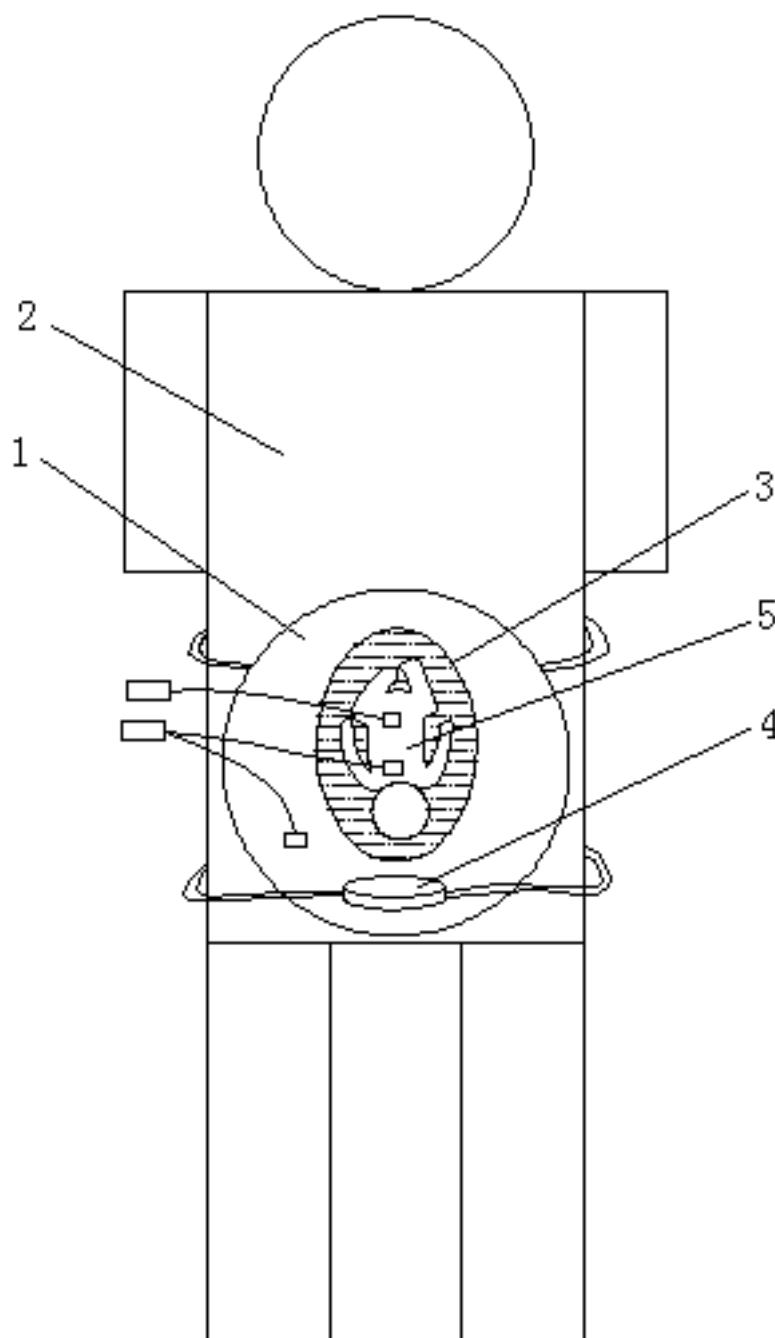
Family 16/32 - FAMPAT - ©Questel

Title

(CN104700699)

Teaching model for abdominal examination skill training during pregnancy

Images



Publication data including kind & date

[CN104700699](#)

A 2015-06-10 CN104700699



Abstract

(CN104700699)

The invention discloses a teaching model for abdominal examination skill training during pregnancy. The teaching model comprises a pregnancy abdomen phantom, wherein the pregnancy abdomen phantom can be fixed to the abdomen of a whole female body model, a uterus phantom and a pelvis inlet phantom are arranged in the pregnancy abdomen phantom, a fetus phantom is arranged in the uterus phantom, and liquid is filled between the fetus phantom and the inner wall of the uterus phantom. A first microphone is arranged on the fetus phantom and used for playing fetal heart sound and umbilical cord sound, a second microphone is arranged on the uterus phantom and used for playing uterine souffle, placental souffle

and aorta abdominalis souffle, and the first microphone and the second microphone are in signal connection with a player. A vibration device for simulating fetal movement is arranged on the fetus phantom and is in signal connection with the controller. The teaching model for abdominal examination skill training during pregnancy has the advantages of being simple in structure, good in simulation performance and good in teaching effect.

Inventors

LI XINBEN

ZHAO FENGXIA

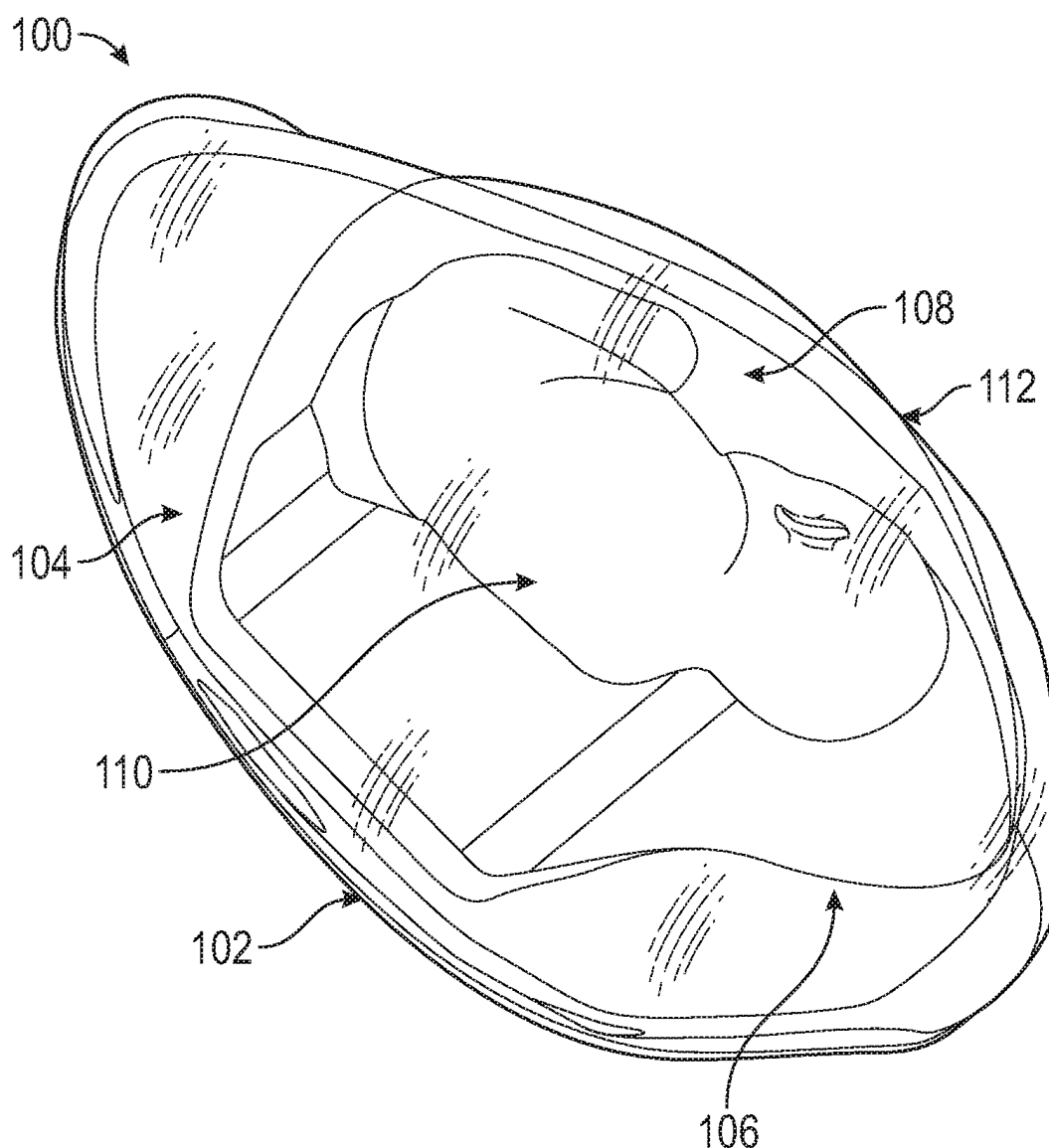
LI LINGXIAO

Family 17/32 - FAMPAT - ©Questel

Title

(US9959784)

Pregnant abdominal system and associated devices, systems, and methods

Images**Publication data including kind & date**

US20140212863	A1	2014-07-31	US20140212863
US9721482	B2	2017-08-01	US9721482
US20170221386	A1	2017-08-03	US20170221386



US9959784

B2 2018-05-01 US9959784

Abstract

(US9959784)

Simulated pregnant abdominal systems and associated devices, systems, and methods are provided. The pregnant abdominal systems allow an interactive scenario simulating a routine gestation palpation of a fetal baby, the performance of an external cephalic version as well as the Leopold's Maneuvers. Further, the pregnant abdominal systems can be used as a platform to physically hear the fetus heartbeat using stethoscope, Doppler instrument, or a prenatal monitor. Further, in some implementations the fetus can be visualized using standard ultrasound systems.

Inventors

LOWE SIOBHAIN
TARUD CHRISTINE M

Latest standardized assignees - inventors removed

GAUMARD SCIENTIFIC

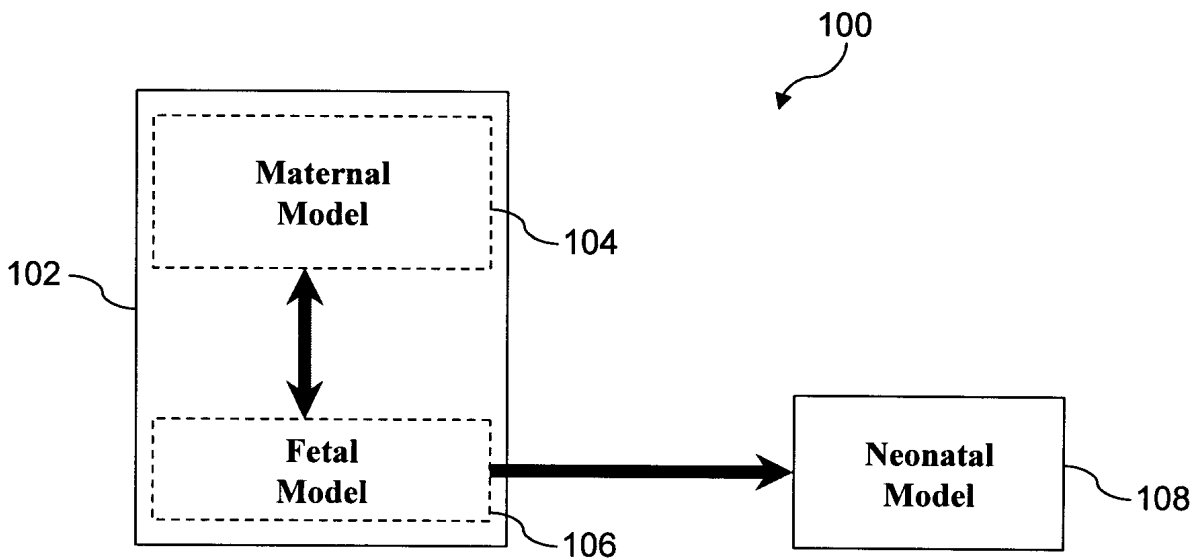
Family 18/32 - FAMPAT - ©Questel

Title

(WO2011103167)

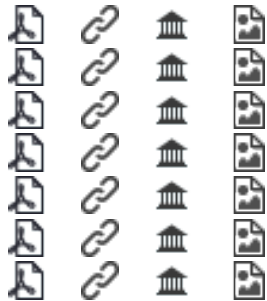
Interactive education system with physiological modeling

Images



Publication data including kind & date

WO2011103167	A2	2011-08-25	WO2011103167
US20110207105	A1	2011-08-25	US20110207105
WO2011103167	A3	2012-01-19	WO2011103167
US8740624	B2	2014-06-03	US8740624
US20140272874	A1	2014-09-18	US20140272874
US9697749	B2	2017-07-04	US9697749
US20170287363	A1	2017-10-05	US20170287363



Abstract

(WO2011103167)

Patient simulator systems for teaching patient care are provided. In some instances, the patient simulator systems include a patient body comprising one or more simulated body portions. Generally, the patient simulator systems of the present disclosure provide physiological modeling. In one embodiment, the patient simulator includes a maternal simulator comprising a maternal circulatory model, a maternal cardiac ischemia model, and a maternal respiratory model and a fetal simulator comprising a fetal circulatory model, a fetal cardiac ischemia model, and a fetal central nervous system model. A controller in communication with the maternal and fetal simulators coordinates parameters of the maternal circulatory

model, the maternal cardiac ischemia model, the maternal respiratory model, the **fetal** circulatory model, the **fetal** cardiac ischemia model, and the **fetal** central nervous system model to simulate physiological characteristics of a natural mother and **fetus**. Methods of utilizing the patient simulator systems are also provided.

Inventors

EGGERT JOHN S

JIANG NING

RAMIREZ MARIA CHRISTINA

Latest standardized assignees - inventors removed

GAUMARD SCIENTIFIC

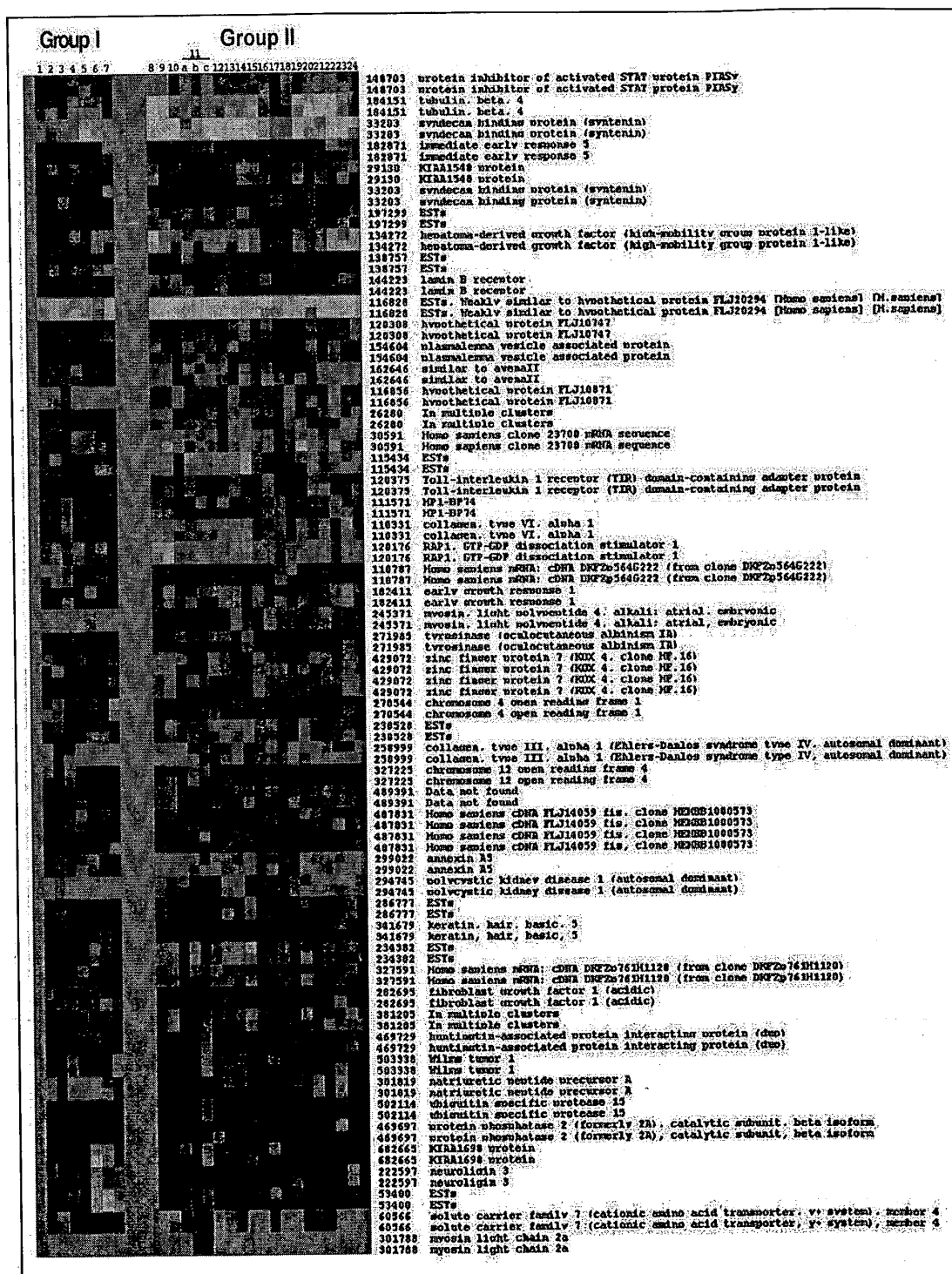
Family 19/32 - FAMPAT - ©Questel

Title

(WO200497039)

Biosynthetic platform for cardioprotective gene expression using neonatal immature and **fetal** heart tissue**Images**

FIGURE 1



Publication data including kind & date

US20040220125	A1	2004-11-04	US20040220125
WO2004097039	A2	2004-11-11	WO200497039
WO2004097039	A9	2004-12-23	WO200497039
US20050054599	A1	2005-03-10	US20050054599
WO2004097039	A3	2005-05-26	WO200497039
US20080214799	A1	2008-09-04	US20080214799



Abstract

(WO200497039)

The present invention is directed toward elucidation of a human **fetal** gene expression program in response to simulated ischemia/reperfusion (I/R) in order to identify molecular targets which account for the innate cardioprotection exhibited by

the **fetal** phenotype. The present invention is further directed toward identification of cardioprotective gene programs in the neonatal heart. Specifically, the newborn (immature) heart or alternatively **fetal** heart has been recognized as having an increased resistance to pathophysiological forms of stress, e.g., hypoxic stress. The pattern of gene expression in immature heart subject to naturally occurring hemodynamic and hypoxic stress, e.g., that associated with obstructive congenital heart disease, is herein revealed by differential gene profiling; and the induction of a cardioprotective, gene pattern, and particularly useful subsets thereof, in the heart chronically adapted to stress is confirmed. Thus, the chronically stressed immature heart provides a novel biosynthetic platform for cardioprotective gene expression, useful as a basis for the development of diagnostic and therapeutic modalities.

Inventors

COLES JOHN G

VAN ARSDELL GLEN

TAKAHASHI MARK

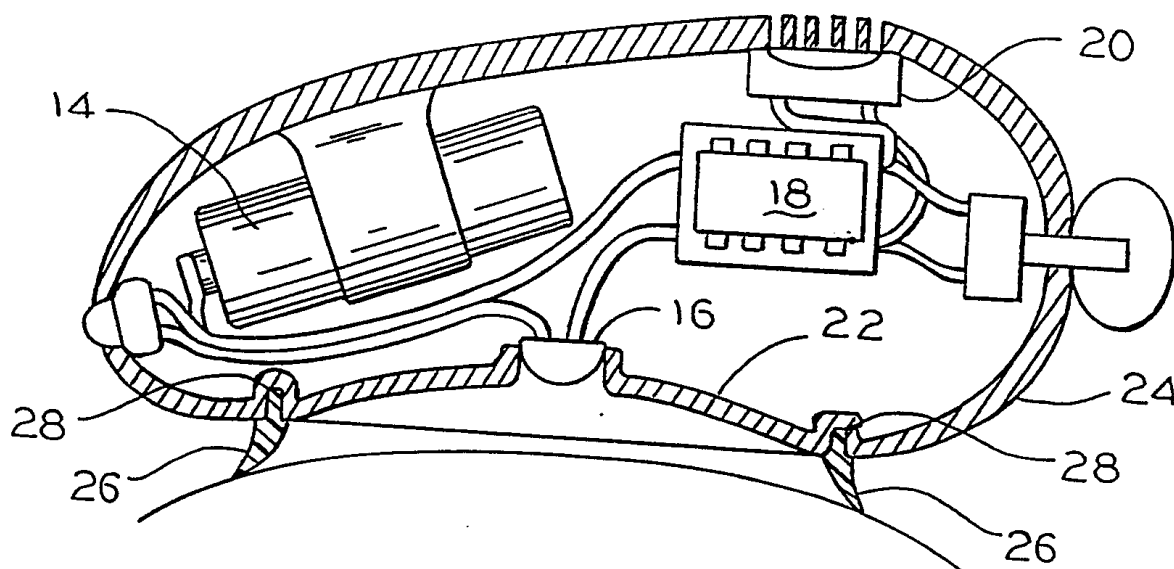
Latest standardized assignees - inventors removed

HOSPITAL FOR SICK CHILDREN

Family 20/32 - FAMPAT - ©Questel

Title

(WO9110489)

Toy **fetal** life sounds monitor**Images****Publication data including kind & date**

CA2050327	A1	1991-07-13	CA2050327
WO9110489	A1	1991-07-25	WO9110489
JPH05500181	A	1993-01-21	JP05500181

**Abstract**

(WO9110489)

A toy life sounds monitor (10) is provided having a housing (12) containing an energy source means (14) supplying energy to a first transducer means (16) and amplification means (18) for driving a second transducer means (20). The housing (12) is structured and dimensioned in a form appealing to small children and for application to the abdominal area of a pregnant woman for purpose of monitoring intrauterine life sounds in the pregnant woman.

Inventors

BETHURUM KATHY NEAL

BETHURUM LELAND L

EMMEL GREGORY J

NEAL WILLIAM R

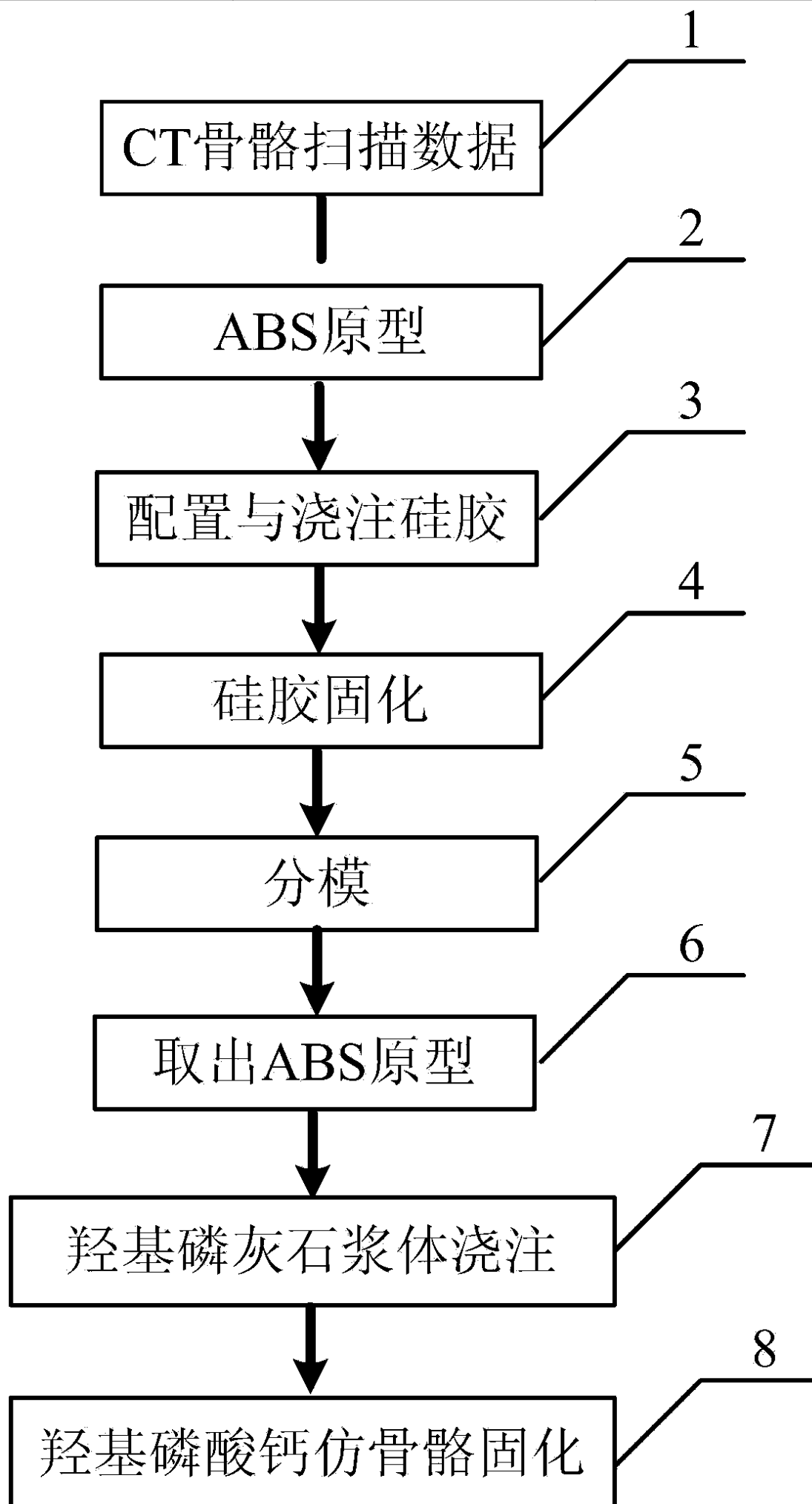
Family 21/32 - FAMPAT - ©Questel

Title

(CN103617761)

High-precision multi-tissue simulation fetal model

Images



Publication data including kind & date

CN103617761	A	2014-03-05	CN103617761
CN103617761	B	2016-02-17	CN103617761B

**Abstract**

(CN103617761B)

The invention discloses a high-precision multi-tissue simulation **fetal** model, and belongs to the field of medical applied researches. The model mainly comprises simulation **fetal** bones, simulation **fetal** organs and simulation **fetal** muscular tissues, wherein the simulation **fetal** bones are made of hydroxyapatite, the simulation **fetal** organs are made of elastic materials, the simulation **fetal** muscular tissues are made of elastic materials, and the model is characterized in that according to computed tomography data of a **fetus**, the three-dimensional printing technology is adopted to make a **fetal** high-precision acrylonitrile-butadiene-styrene plastic model, and a simulation **fetal** silicone mold is made through the model. The manufactured simulation **fetal** organs and the simulation **fetal** bones are fixed in the mold, simulation muscular tissue material pouring is carried out, and the manufacturing of the simulation **fetal** model is completed. The manufactured simulation **fetal** model provides the characteristics such as ultrasound and X-ray detection of the external **fetal** simulation shape, the internal organs and the bones, and is widely applied to the fields, such as medical training and teaching, medical image processing and medical equipment detection.

Inventors

ZHU HAIJIANG

QI HAIBO

SONG JIAN

Latest standardized assignees - inventors removed

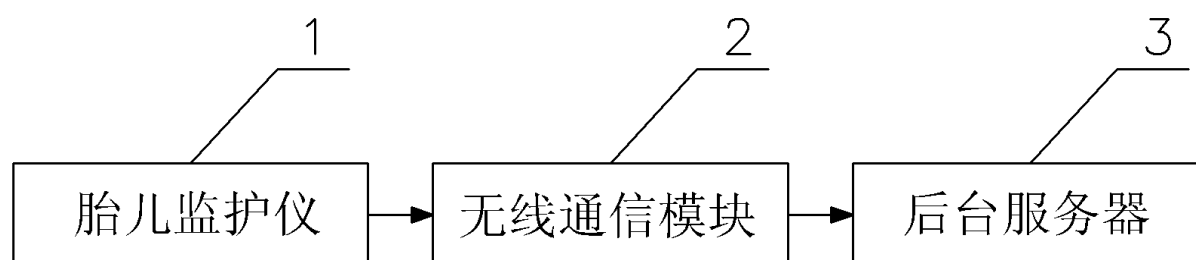
BEIJING UNIVERSITY OF CHEMICAL TECHNOLOGY

SHIJIAZHUANG TIEDAO UNIVERSITY

Family 22/32 - FAMPAT - ©Questel

Title

(CN103371852)

Remote wireless **fetus** monitoring system**Images****Publication data including kind & date**

CN103371852	A	2013-10-30	CN103371852
CN103371852	B	2015-11-25	CN103371852B

**Abstract**

(CN103371852B)

The invention relates to the technical field of medical equipment and discloses a remote wireless **fetus** monitoring system which comprises a **fetus** monitor for a pregnant woman to use, a wireless communication module, a background module and a cellphone. The **fetus** monitor is mainly composed of a probe, a simulation amplifying circuit and a digital collection circuit, the probe comprises a Doppler ultrasonic probe, a uterine contraction pressure probe and a quickening marker which are all connected with the simulation amplifying circuit, the simulation amplifying circuit is further connected with the digital collection circuit, the wireless communication module is connected with the **fetus** monitor, a short message center is arranged in the background server, and the background server can invoke a short message informing interface to send short messages. The remote wireless **fetus** monitoring system has the advantages that by the system, the pregnant woman

can monitor a fetus at home and does not need queue up in the hospital, so that outgoing cost and risk on the way of the pregnant woman are reduced, probability that the pregnant women is infected with a disease when going to the hospital is lowered, and resources of the hospital are utilized fully and reasonably.

Inventors

MA YUNDONG

Latest standardized assignees - inventors removed

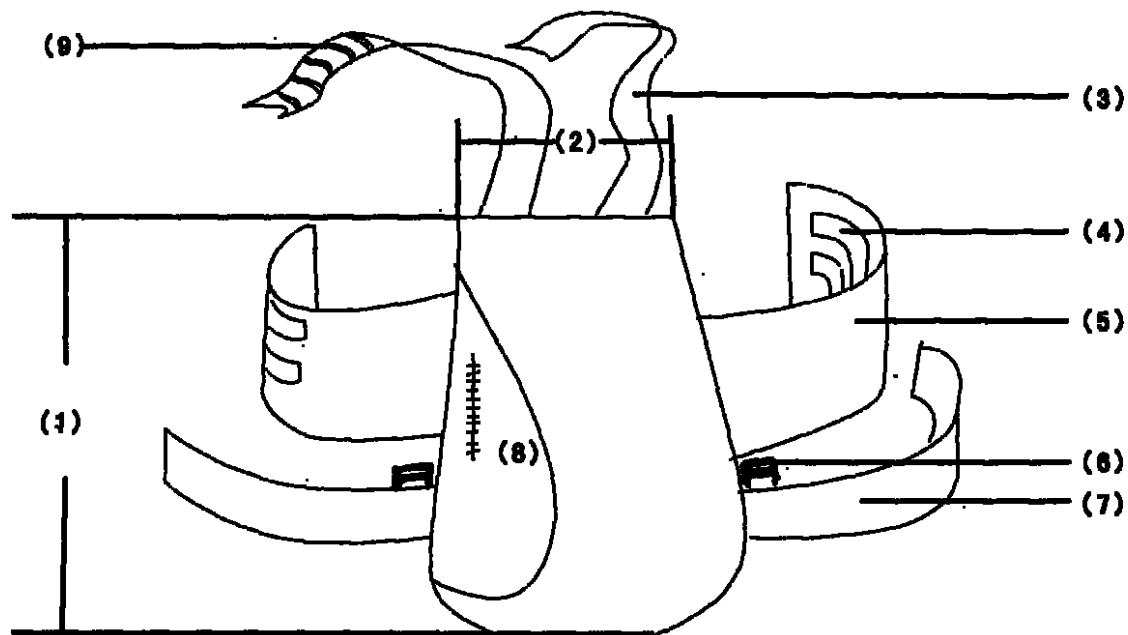
GUANGZHOU BEIHUJIA MEDICAL TECHNOLOGY

Family 23/32 - FAMPAT - ©Questel

Title

(CN202332040U)

Wearable abdomen examination teaching model for third trimester of pregnancy

Images**Publication data including kind & date**

CN202332040

U

2012-07-11

CN202332040U

**Abstract**

(CN202332040U)

The utility model discloses a wearable abdomen and fetus model for third trimester of pregnancy. The wearable abdomen and fetus model adopts a knapsack design and can be worn by students for home and outside movements so as to experience daily life, outside feeling and requirements of pregnant women; a fetus (18) in different positions of the fetus (near full term) is arranged in the wearable abdomen and fetus model so as to be beneficial for students to carry out four-step palpation and identify different positions of the fetus; amniotic fluid is replaced by a spherical elastic space cotton (19) in the wearable abdomen and fetus model, so that the fetus is suspended in the wearable abdomen and fetus model, a fetus head is touched like a sense of a floating ball, the fetus is stopped from sinking downwards and backwards by an elastic belt (13), and an abdominal wall has elasticity; a fetal movement trigger device (17) is arranged on a fetus body so as to touch the fetal movement; a fetal heart sounder (15) is arranged on the back of the fetus and is provided with a quick gear, a slow gear and a normal gear, which are adjustable; and a pull lock (8) is arranged on the lateral surface of a knapsack so as to be beneficial to replacing batteries. The wearable abdomen examination teaching model for the third trimester of pregnancy is an ideal model for professional teaching such as each medicine and nursing college and university, maternal and health care and the like.

Inventors

AN LIBIN

GAO YUXIA

LI WENTAO

Latest standardized assignees - inventors removed

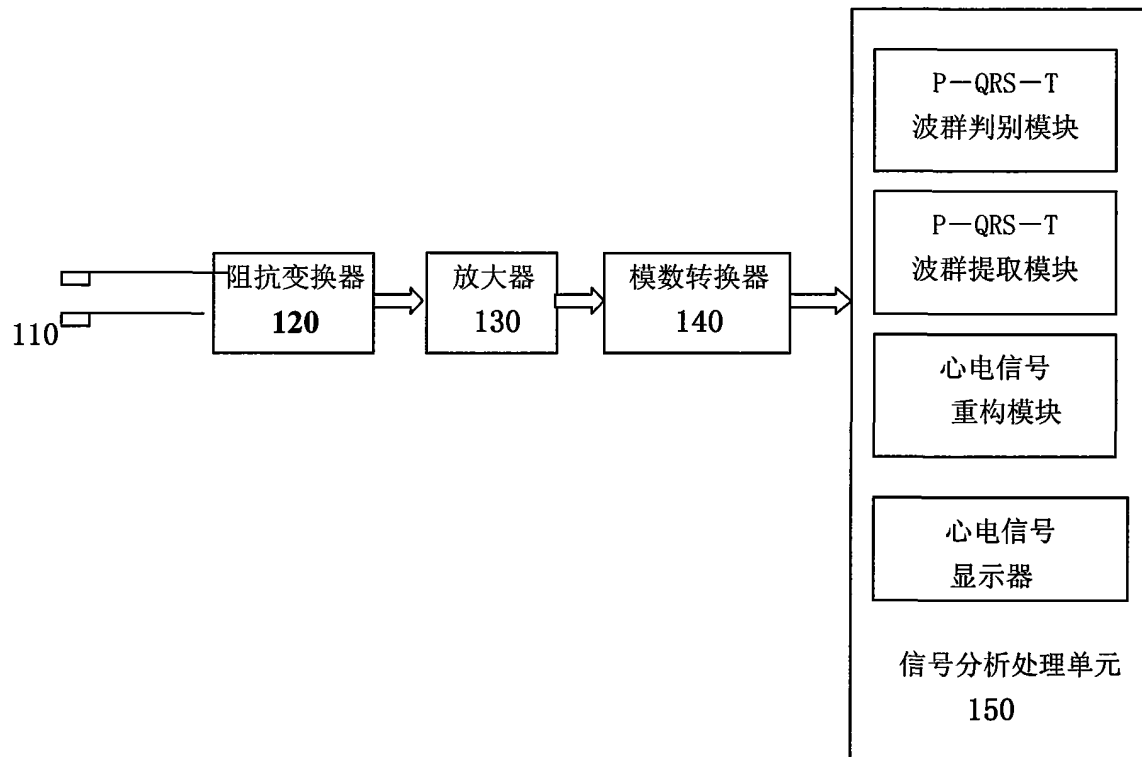
JILIN UNIVERSITY

Family 24/32 - FAMPAT - ©Questel

Title

(CN101627907B)

Device and method for analyzing and processing electrocardiograph signal

Images**Publication data including kind & date**

CN101627907	A	2010-01-20	CN101627907
CN101627907	B	2012-09-05	CN101627907B

**Abstract**

(CN101627907B)

The invention provides a device and a method for analyzing and processing an electrocardiograph signal. The device comprises a pair of electrocardiograph recording electrodes put on the skin of a human body, an impedance converter used for converting a high-impedance analog signal into a low-impedance analog signal, an amplifier which is connected with the impedance converter and used for amplifying the low-impedance analog signal, an analog-to-digital converter used for sampling the amplified analog signal and converting the amplified analog signal into a digital signal, a signal analyzing and processing unit used for carrying out position judging, extraction and reconstruction on the electrocardiograph signal which is converted into the digital signal, and an electrocardiograph signal display device. The invention can be used for the heart monitoring of ordinary people and also used for the electrocardiograph monitoring of the **fetus** of pregnant women. Because the interference of a non-electrocardiograph-signal with the same frequency is eliminated, the accuracy is very high.

Inventors

CAO YANG

Latest standardized assignees - inventors removed

SHENZHEN DIMEITAI DIGITAL MEDICAL TECHNOLOGY

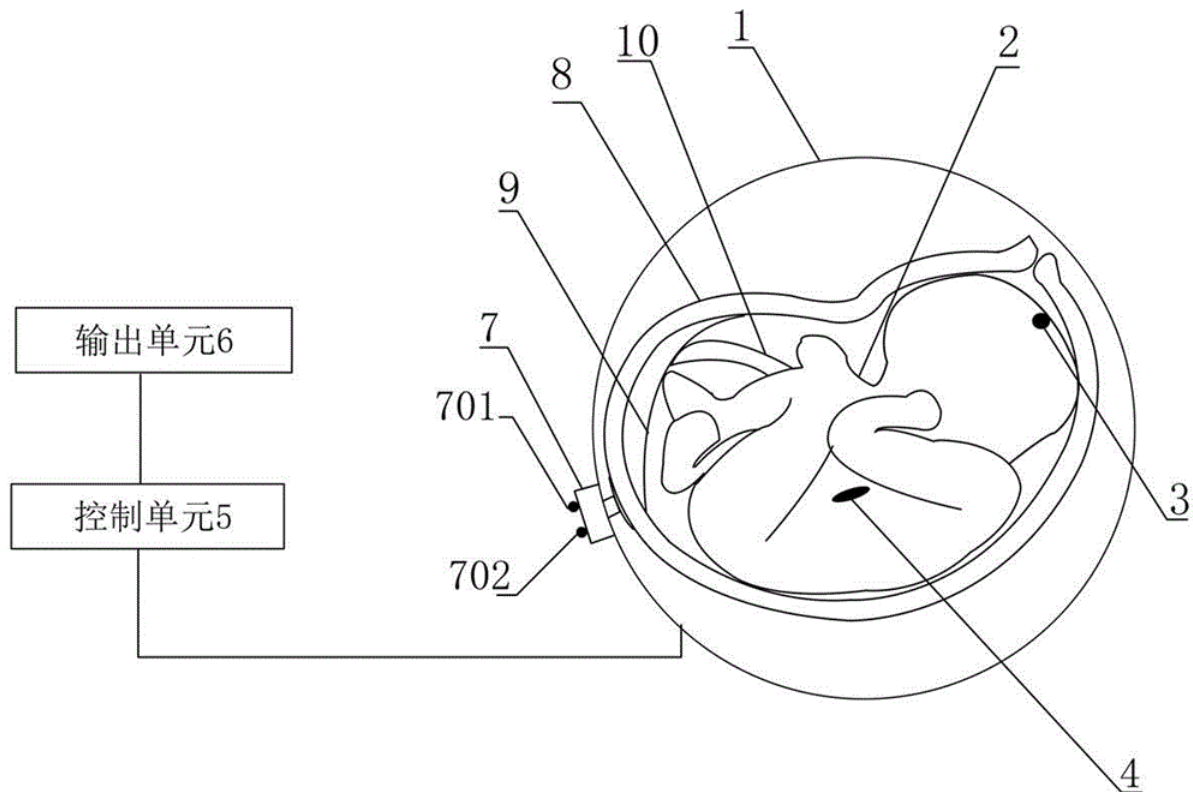
Family 25/32 - FAMPAT - ©Questel

Title

(CN205508238U)

Analogue means is detected to position of a **foetus**

Images



Publication data including kind & date

[CN205508238](#)

U

2016-08-24

CN205508238U



Abstract

(CN205508238U)

Analogue means is detected to position of a **foetus** including pregnant woman's belly module, arranges pregnant woman's belly my wife emulation **foetus** in utero in, output unit, and its characterized in that, emulation **foetus** head install position sensor, heart department installs child sound player, still include the the control unit who is connected with position sensor, child sound player, the control unit receives the information that position sensor gathered and feeds back to output unit, the rotary device of the change of uterus not equidirectional emulation **foetus** position is still simulated including the regulation, pregnant woman's belly module be a hollow cavity, place the simulation uterus with the simulation placenta, the **foetal** position change of ultrasonic testing emulation can carry out to and adopt the simulation stethoscope to listen to the **foetal** child sound of emulation, and can simulate uterine different positions by automatic control emulation **foetus**.

Inventors

LIU TINGTING

Hu Zhihui

ZHOU QIANG

LI ZHENG

Pu Yulong

LÜ DONGLIANG

HUANG CHENGWEI

ZHANG YONGSHENG

Guan Wenhuan

CHEN JUGUO

MA YANHUI

LI MINGMING

Latest standardized assignees - inventors removed

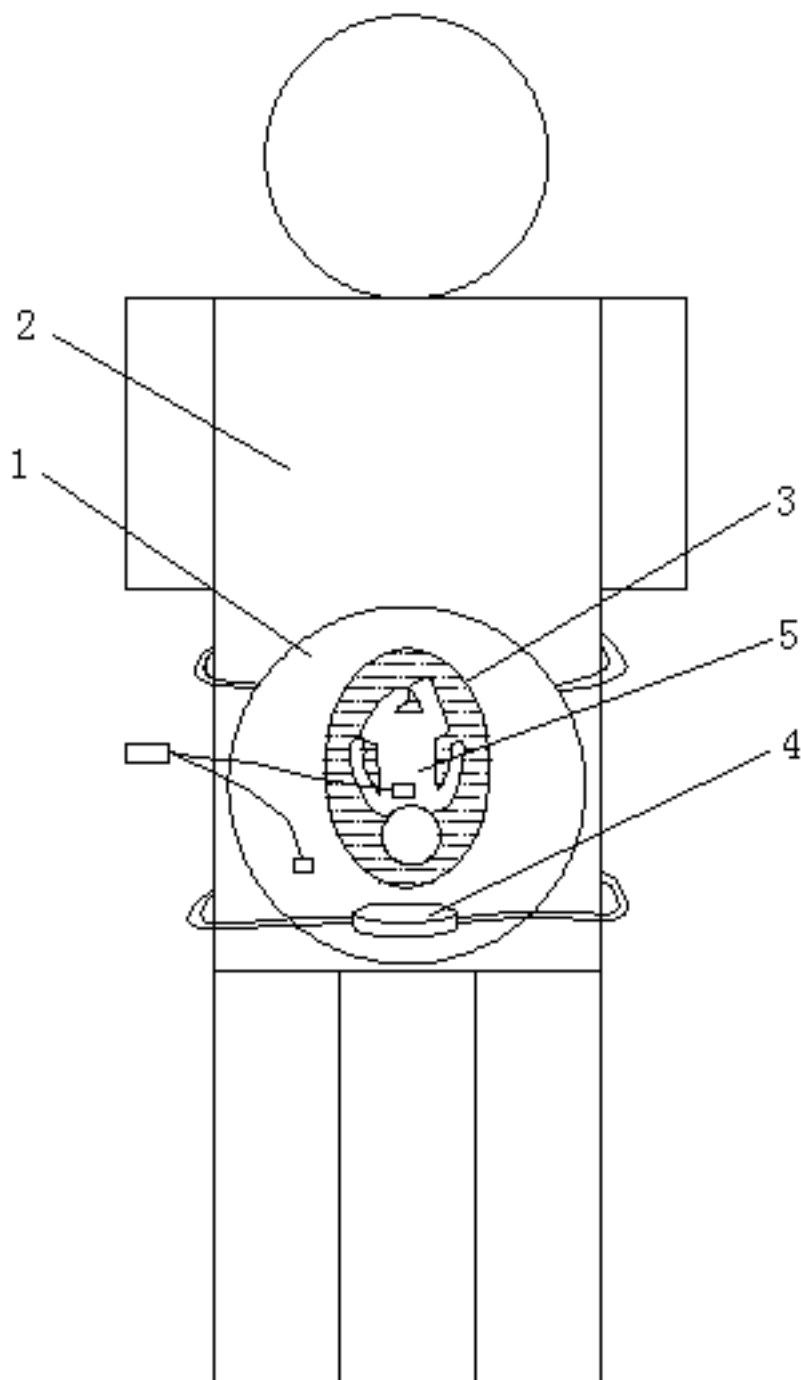
TIANJIN TIANYAN TECHNOLOGY

Family 26/32 - FAMPAT - ©Questel

Title

(CN204480570U)

Skill training and teaching model for abdominal examination during duration of pregnancy

Images**Publication data including kind & date**[CN204480570](#)

U

2015-07-15

CN204480570U

**Abstract**

(CN204480570U)

The utility model provides a skill training and teaching model for abdominal examination during the duration of pregnancy, which comprises a pregnant abdomen profile model. The pregnant abdomen profile model can be fixed to the abdomen of a

female whole-body model. The pregnant abdomen profile model is internally provided with a uterus profile model and a pelvic inlet profile model. The uterus profile model is internally provided with a **fetus** profile model. The gap between the **fetus** profile model and the inner wall of the uterus profile model is filled with the liquid. The **fetus** profile model is provided with a first loudspeaker used for playing **fetal** heart sounds and umbilical cord sounds. The uterus profile model is provided with a second loudspeaker used for playing uterus noises, placenta noises and aortaventralis noises. The first loudspeaker and the second loudspeaker are in signal connection with a player. The **fetus** profile model is provided with a vibrator used for simulating the **fetal** movement. The vibrator is in signal connection with a controller. The skill training and teaching model is simple in structure, strong in simulatedness and good in teaching effect.

Inventors

LI LINGXIAO

ZHAO FENGXIA

Latest standardized assignees - inventors removed

NINGBO HEALTH PROFESSIONAL TECHNICAL COLLEGE

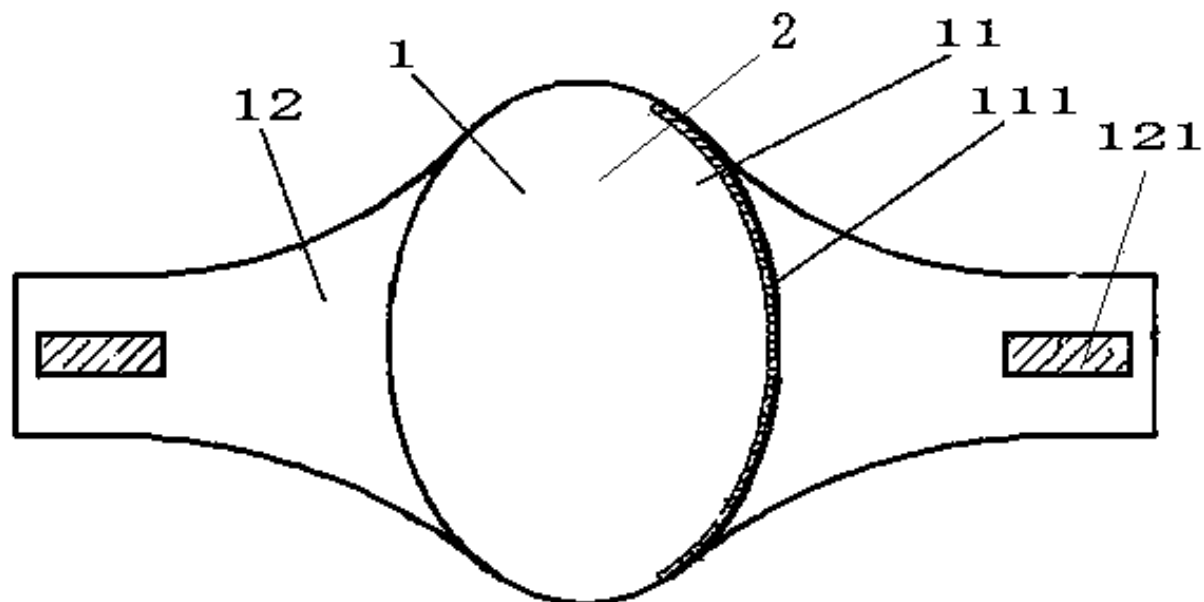
Family 27/32 - FAMPAT - ©Questel

Title

(CN204884374U)

Multi -functional portable pregnant woman's belly model

Images



Publication data including kind & date

[CN204884374](#)

U

2015-12-16

CN204884374U



Abstract

(CN204884374U)

The utility model discloses a multi -functional portable pregnant woman's belly model comprises belly waistband structure and emulation **foetus** structure, and emulation **foetus** structure sets up in belly waistband structure, in using, fix the waist the user through the thread gluing with the waistband, but wearing person free activity or crouch and supply inspector to carry out clinical practice in the bed, the emulation **foetus** is in the suspended state in the belly bag, open child heart generator, adjustable with experience **foetal** speed aroused in interest of emulation and number of times, when the first inductor of touching, the arm is automatic does 90 half circulatory motions along the shoulder, when touching second inductor, the shank is automatic does 90 semi -rings shape up -and -down motion along the thigh root, reach the simulation effect of **foetus** activity, and after the reaction is over, it can to close child heart generator. The utility model discloses simple structure carries and dresses the convenience, and it is obvious to experience the effect, and the true activity circumstances such as the interior **foetus fetal** movement of the real understanding pregnant woman belly of user's ability can the wide application on teaching and clinical practice.

Inventors

GAO YUXIA

HU JIEMAN

YANG RUI

DU JILI

TANG NAN

QI CHONG

GE GAOQI

WANG JINGJING

HOU RIYING

ZHANG JINYONG

Latest standardized assignees - inventors removed

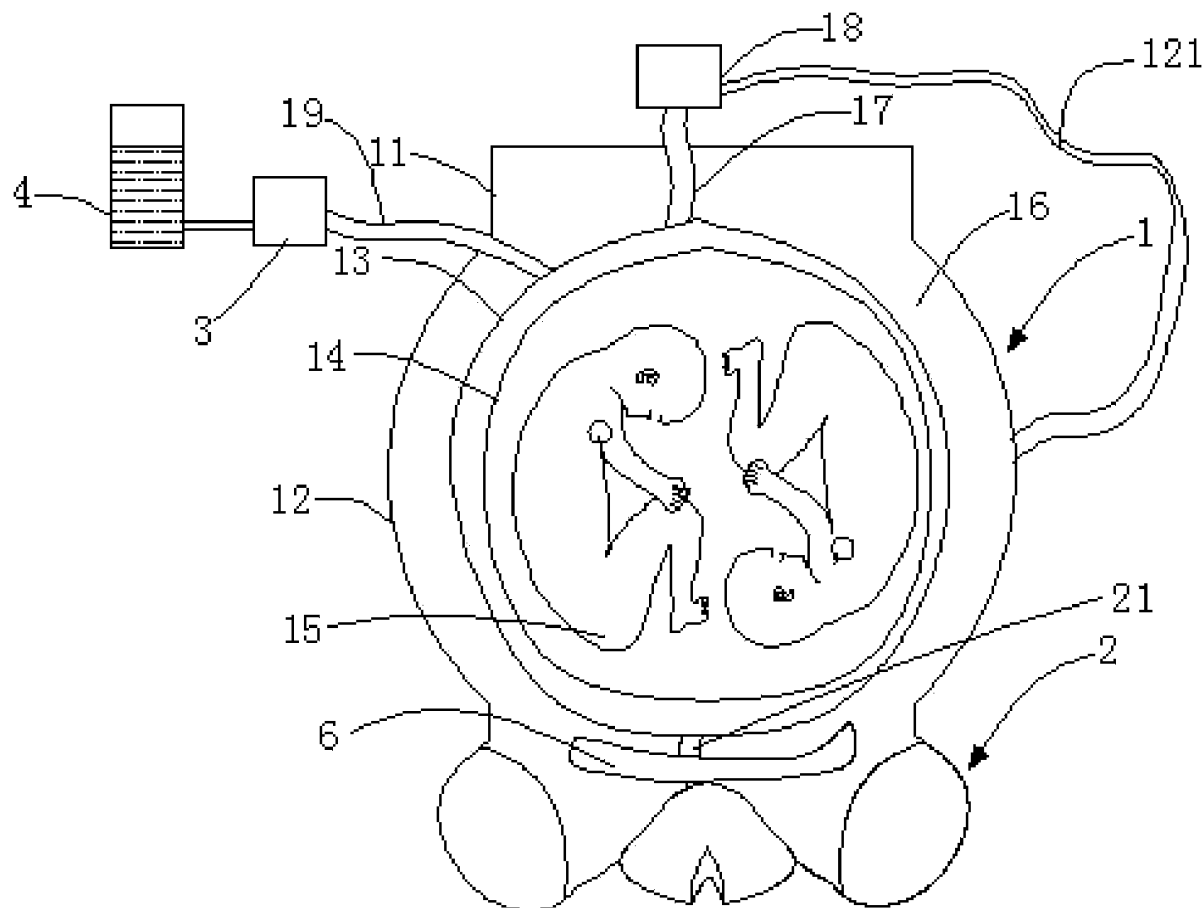
JILIN UNIVERSITY

Family 28/32 - FAMPAT - ©Questel

Title

(CN204143740U)

Multiple pregnancy test model

Images**Publication data including kind & date**[CN204143740](#)

U

2015-02-04

CN204143740U

**Abstract**

(CN204143740U)

The utility model provides a multiple pregnancy test model including an abdomen model and a pudendum model. The abdomen model includes an abdomen model body, the skin of an abdominal wall, a uterus, at least one amnion, more than two mature fetus models. The uterus is arranged in the abdomen model body. The upper part of the uterus is communicated with a first air pipe protruding out of the abdomen model body. The first air pipe is connected with an air pump. The amnion

is disposed in the uterus. The mature fetus models are arranged in the amnion. A side wall of the upper part of the amnion is communicated with an amniotic fluid pipe protruding out of the uterus and the abdomen model body. The upstream of the amniotic fluid pipe is connected with a pump and an amniotic fluid storage box. The skin of the abdominal wall is also communicated with a second air pipe. The second air pipe and the first air pipe share the air pump. According to the utility model, by arranging the mature fetus models in the uterus, simulating pregnancy check for twins can be realized. Moreover, simulating pregnancy test for monozygotic or fraternal multiple births can be realized further.

Inventors

LIN XIAOYING

HUANG TAO

SONG WENYAN

YANG JINLING

Latest standardized assignees - inventors removed

JINAN CENTRAL HOSPITAL

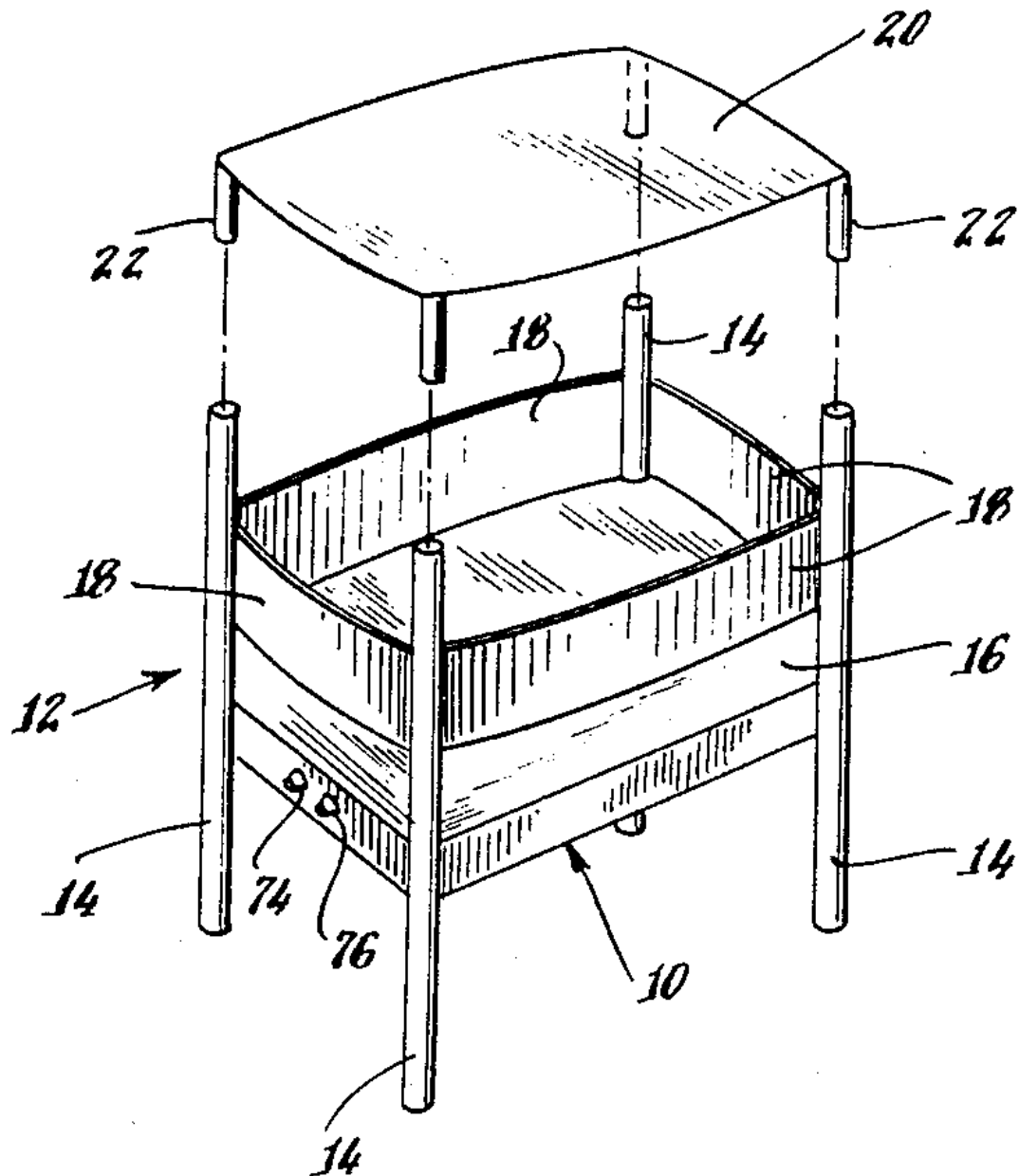
Family 29/32 - FAMPAT - ©Questel

Title

(US4947832)

Apparatus and method for treating or relieving colicky infants

Images



Publication data including kind & date

US4947832

A 1990-08-14 US4947832



Abstract

(US4947832)

A colicky infant's vestibular and auditory centers are stimulated mechanically to simulate womb conditions to ease the transition from womb to postgestational life. In this soothing method an infant is placed in a crib with a mattress and having padded protective sides assuring appropriate positioning on the mattress, to which is imparted a regular, repetitive low frequency sine wave motion progressively traveling longitudinally thereof with simultaneous vibrations, whereby the infant experiences gentle, low frequency, regular, progressive, traveling sine wave motion plus hearing and sensing subdued vibrations like sensations previously experienced in the womb. The protective padded sides encircling the infant offer a warm enclosure while subduing or muffling exterior sounds. The illustrative apparatus includes an upper, mattress-supporting layer having a longitudinal series of transverse slats, gently moved up and down by motor-driven cams providing a distributed drive producing regular, repetitive, progressively traveling sine wave motion simulating peristalsis effects of an intestine near a uterine wall. This support layer is also driven by vibrators simulating inter-uterine pulsations of a mother's blood, heartbeat, body movements, etc. A one-inch thick foam mattress covering the slats provides the longitudinally traveling sine wave motion undulating up and down about 2 to 7 millimeters (preferably 3.5 to 6.5 mm) at about 7 to 20 cycles per minutes, optimally about 8 to 12 cycles per minute, with wave length from about 24 inches to about

3 inches, and presently preferred from about 18 inches to about 4 inches.

Inventors

BLITZER AVRUM H

Latest standardized assignees - inventors removed

VARTA BATTERIE

Family 30/32 - FAMPAT - ©Questel

Title

(CN201662926U)

Pregnant woman model available for auscultation and palpation

Publication data including kind & date

[CN201662926](#) U 2010-12-01 CN201662926U

**Abstract**

(CN201662926U)

A pregnant woman model available for auscultation and palpation belongs to teaching aids and is characterized in that a uterus (2) is arranged inside an artificial pregnant woman model (1), a full-term **fetus** (3) is arranged inside the uterus, an internal pelvic frame (5) is arranged on the lower portion of an abdominal cavity, and the pelvic frame is consistent to anatomy in position. The pregnant woman model is vivid, can be used for training four-step palpation, external pelvimetry, **fetal** heart rate monitoring and breast care, is evident in effect, brings convenience for learners to understand, and can be used as a teaching model and a student's practical tool.

Inventors

LIU XIAOFEI

LIU YANFEI

TIAN RUIPING

QIN CAIHONG

Latest standardized assignees - inventors removed

TELLYES

Family 31/32 - FAMPAT - ©Questel

Title

(FR1232011)

Method and apparatus facilitating DELIVERY SIMULATOR

Publication data including kind & date

[FR1232011](#) A 1960-10-05 FR1232011

**Inventors**

HEYNS OCKERT STEPHANUS

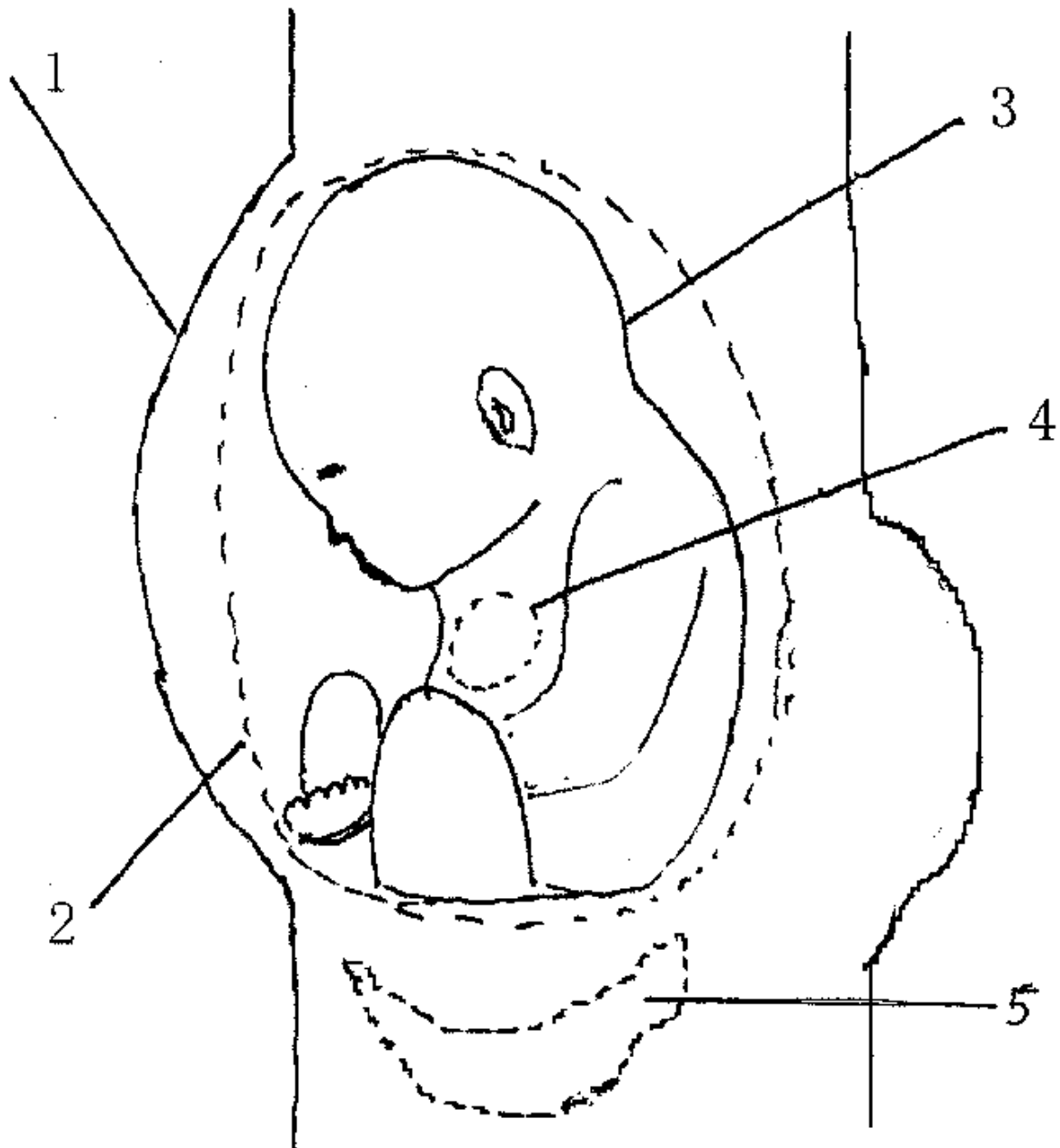
Family 32/32 - FAMPAT - ©Questel

Title

(CN2614368U)

Pregnant woman model capable of auscultation and palpation

Images

**Publication data including kind & date**[CN2614368](#)

Y

2004-05-05

CN2614368U

**Abstract**

(CN2614368U)

An acoustic palpation pregnant model belongs to the teaching apparatus, which is characterized in that an artificial pregnant model (1) is provided with a uterus (2) inside, a term fetus (3) is in the uterus, a pelvic holder (5) is arranged under a celiac and the position of the pelvic holder is the same with the anatomy. The utility model has real image, can be used the training of four-step palpation, measurement outside the pelvic, fetal rhythm monitor and breast nursing, has evident effect, is convenient for exercisers to understand and can be used as the teaching model and student practice apparatus. The exercisers are convenient to understand. The utility model can be used as the teaching model and student practice apparatus.

Inventors

LIU XIAOFEI

LIU YANFEI

Latest standardized assignees - inventors removed

XIAO FEI LIU