

8 Documents

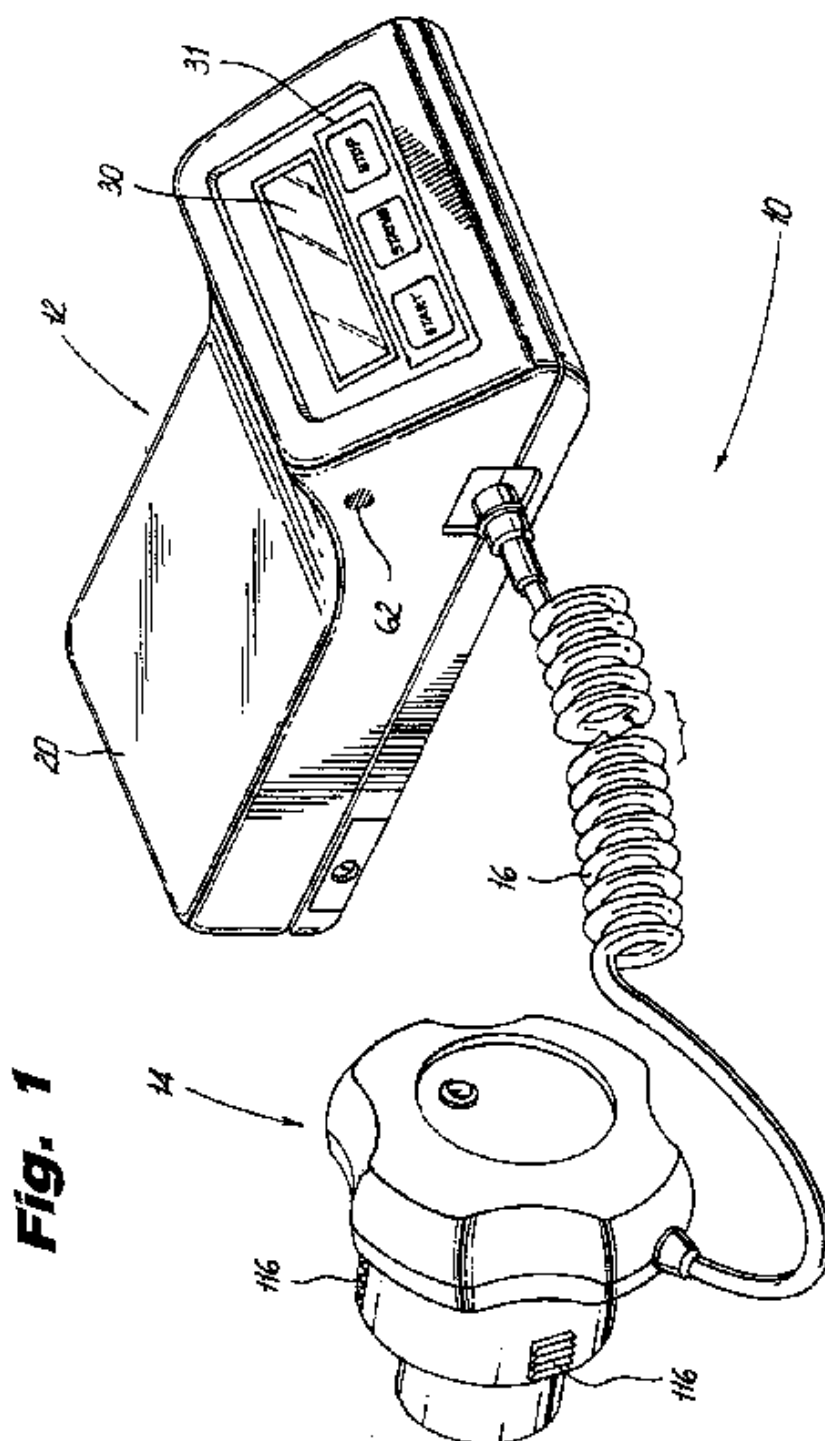
Publication numbers	Title	Current assignees
US5730705 A	Ultrasonic treatment for bony ingrowth	BIOVENTUS, ...
WO9625112 A1	Apparatus for ultrasonic bone treatment	EXOGEN
US5211160 A	Ultrasonic orthopedic treatment head and body-mounting means therefor	BIOMET, ...
US5656016 A	Sonophoretic drug delivery system	HOSPIRA
US5520612 A	Acoustic system for bone-fracture therapy	EXOGEN
US5003965 A	Ultrasonic transducer device for treatment of living tissue and/or cells	EBI VICTORIA
BR8107560 A	Method for healing bone fractures with ultrasound	EXOGEN
GB9408668 D0	Ultrasonic therapeutic system	ORTHOSONICS

Family 1/8 - FAMPAT - ©Questel

Title

(US5730705)

Ultrasonic treatment for bony ingrowth

Images**Publication data including kind & date**[US5730705](#)

A 1998-03-24 US5730705

**Abstract**

(US5730705)

Bony ingrowth adjacent a surface of a prosthetic device is provided by positioning an emitting surface of an ultrasonic applicator adjacent a skin location corresponding to an interface between bone tissue and an artificial prosthetic device

located inside the body. Ultrasound is created and transmitted from the emitting surface into the body at the skin location toward at least a portion of the interface. The ultrasound is modulated to induce shear waves of acoustic energy within the bone adjacent the portion of the interface. The shear waves promote bony ingrowth at the portion of the interface.

Inventors

TALISH ROGER J

RYABY JOHN P

TANZER MICHAEL

BOBYN J DENNIS

Latest standardized assignees - inventors removed

BIOVENTUS

EXOGEN

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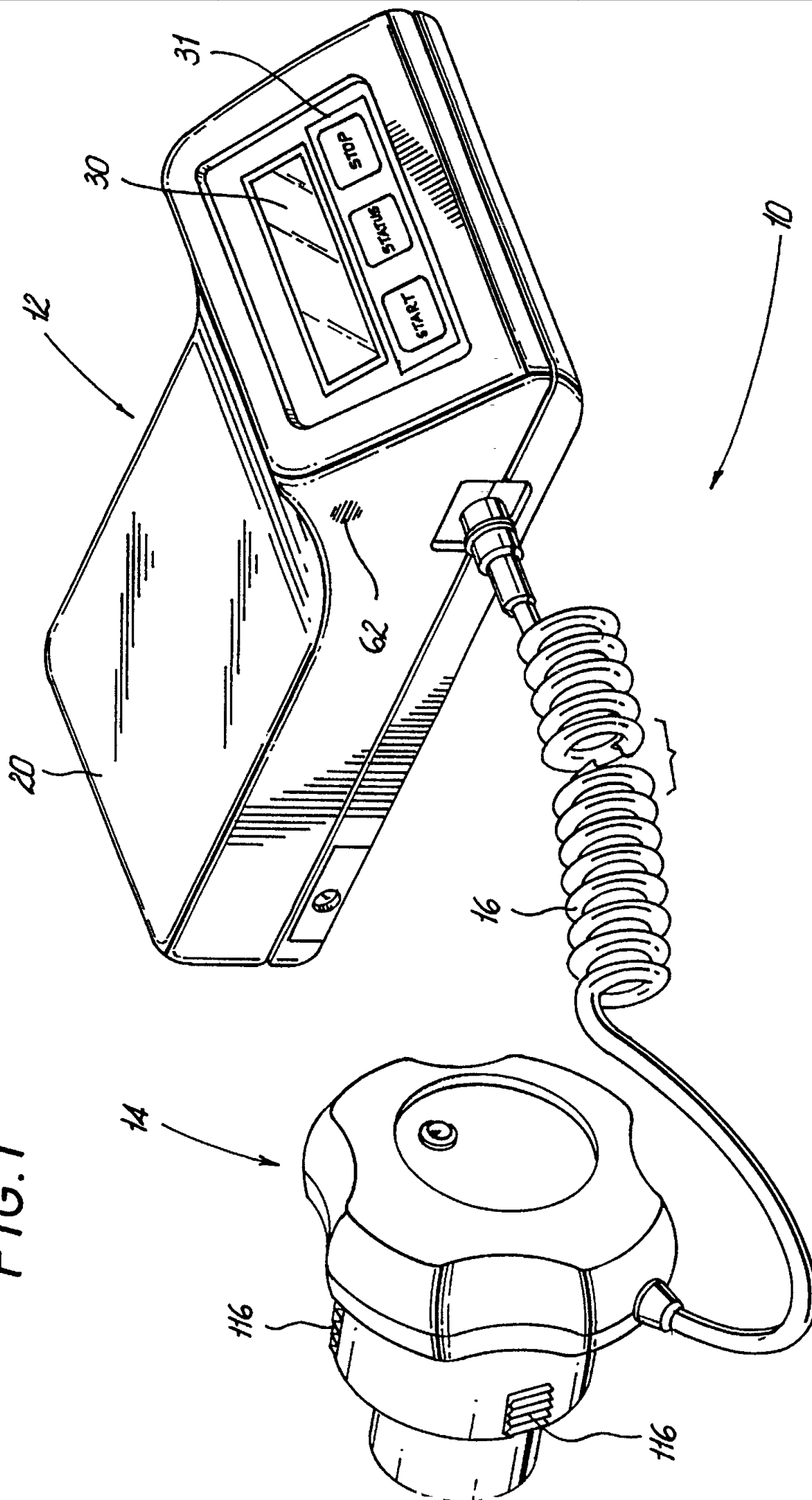
Title

(EP-809470)

Apparatus for ultrasonic bone treatment

Images

FIG. 1



Publication data including kind & date

WO9625112	A1	1996-08-22	WO9625112				
CA2212230	A1	1996-08-22	CA2212230				
AU1883695	A	1996-09-04	AU9518836				
JPH08238284	A	1996-09-17	JP08238284				
US5556372	A	1996-09-17	US5556372				
FI973331	A0	1997-08-14	FI9703331				
FI973331	A	1997-10-13	FI9703331				
EP0809470	A1	1997-12-03	EP-809470				
CN1175194	A	1998-03-04	CN1175194				
KR19980702265	A	1998-07-15	KR19980702265				
MX9706154	A	1998-07-31	MX9706154				
EP0809470	A4	1999-02-24	EP-809470				
NZ281871	A	1999-09-29	NZ-281871				
AU717030	B2	2000-03-16	AU-717030				
EP0809470	B1	2002-10-30	EP-809470				
AT226803	T	2002-11-15	ATE226803				
DE69528713	D1	2002-12-05	DE69528713				
PT809470	E	2003-02-28	PT-809470				
DK809470	T3	2003-03-03	DK-809470T				
ES2182891	T3	2003-03-16	ES2182891				
DE69528713	T2	2003-07-03	DE69528713				
FI112035	B	2003-10-31	FI-112035				
KR100407320	B1	2004-03-24	KR100407320				
JP3830554	B2	2006-10-04	JP3830554				
CA2212230	C	2007-07-17	CA2212230				
CN100374084	C	2008-03-12	CN100374084C				

Abstract

(EP-809470)

The apparatus is used for therapeutically treating injuries using ultrasound. The apparatus includes an ergonomically constructed ultrasonic transducer treatment head module (14) partially fabricated with a conductive plastic material. The apparatus also utilizes a portable, ergonomically constructed main operating unit (12) constructed to fit within a pouch (18) worn by the patient. In operation, the transducer treatment head module (14) is positioned adjacent the area of the injury and excited for a predetermined period of time. To ensure that the transducer treatment head module (14) is properly positioned, and to ensure compliance with a treatment protocol, a safety interlock is provided to prevent inadvertent excitation of the transducer.

Inventors

TALISH ROGER J

RYABY JOHN P

SCOWEN KENNETH J

URGOVITCH KENNETH J

Latest standardized assignees - inventors removed

EXOGEN

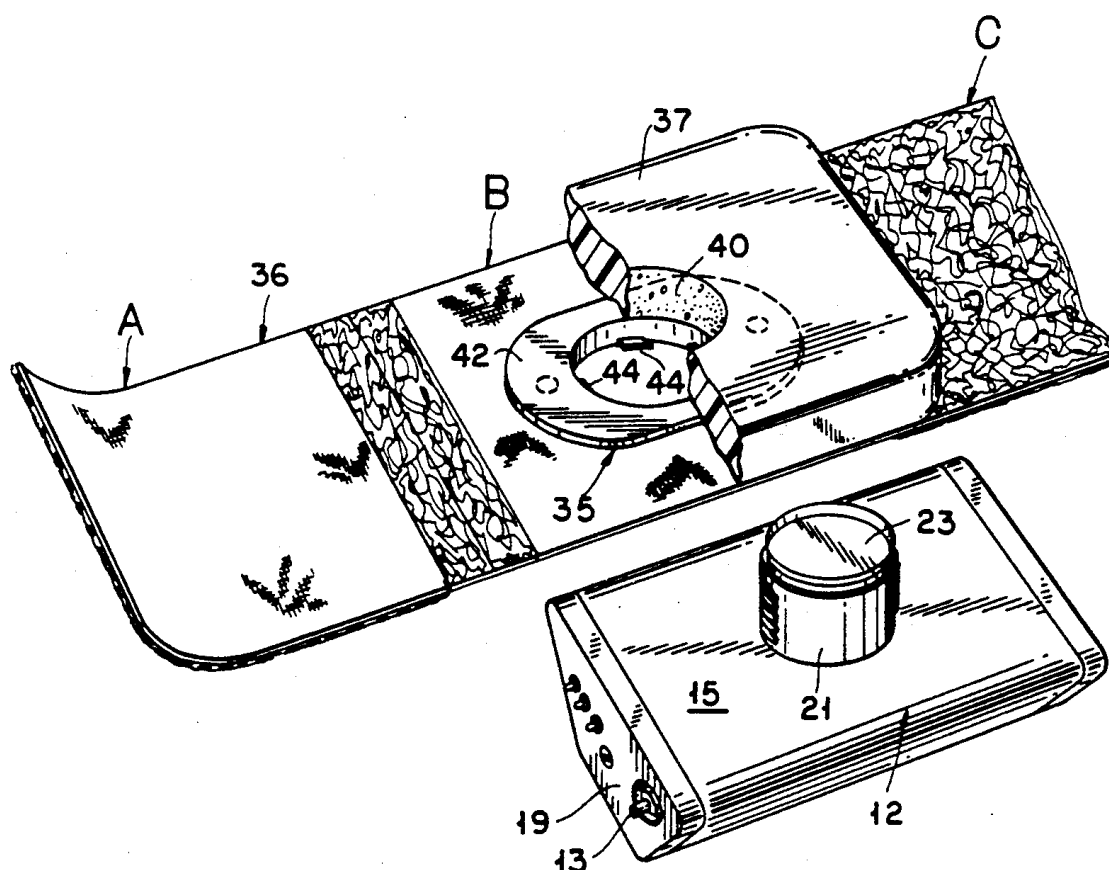
Family 3/8 - FAMPAT - ©Questel

Title

(US5211160)

Ultrasonic orthopedic treatment head and body-mounting means therefor

Images



Publication data including kind & date

US5211160

A 1993-05-18 US5211160



Abstract

(US5211160)

The invention contemplates an improved strap or bandage mounting of a socket element for removably engaged coupling of an ultrasonic transducer element to an afflicted limb. In a preferred embodiment, a radially flanged annular socket element is formed with outward lugs at axial offset from the flange, for preliminary assembly to a length of bandage material which has been cut to provide an opening for registration with the bore of the socket element, with the flange surrounding the opening and against one side of the bandage, while the outward lugs engage the other side of the bandage and also assure the desired registration. A softly compliant pad having a similar opening is removably securable to the flange-mounted side of the bandage to hold registration of the same central opening for all components and to afford direct access to an afflicted body-limb region through the central opening, when the thus-assembled bandage has been wrapped around the limb to securely position the socket element for reception of the transducer of a treatment head. Bayonet-locking lug formations on or near the transducer part of the head coact with lug formations on the socket element to retain the transducer during treatment of an afflicted bone through gel-coupled flesh at the situs of injury.

Inventors

TALISH ROGER J

LIFSHEY ARTHUR L

Latest standardized assignees - inventors removed

BIOMET

LVB ACQUISITION

EBI VICTORIA

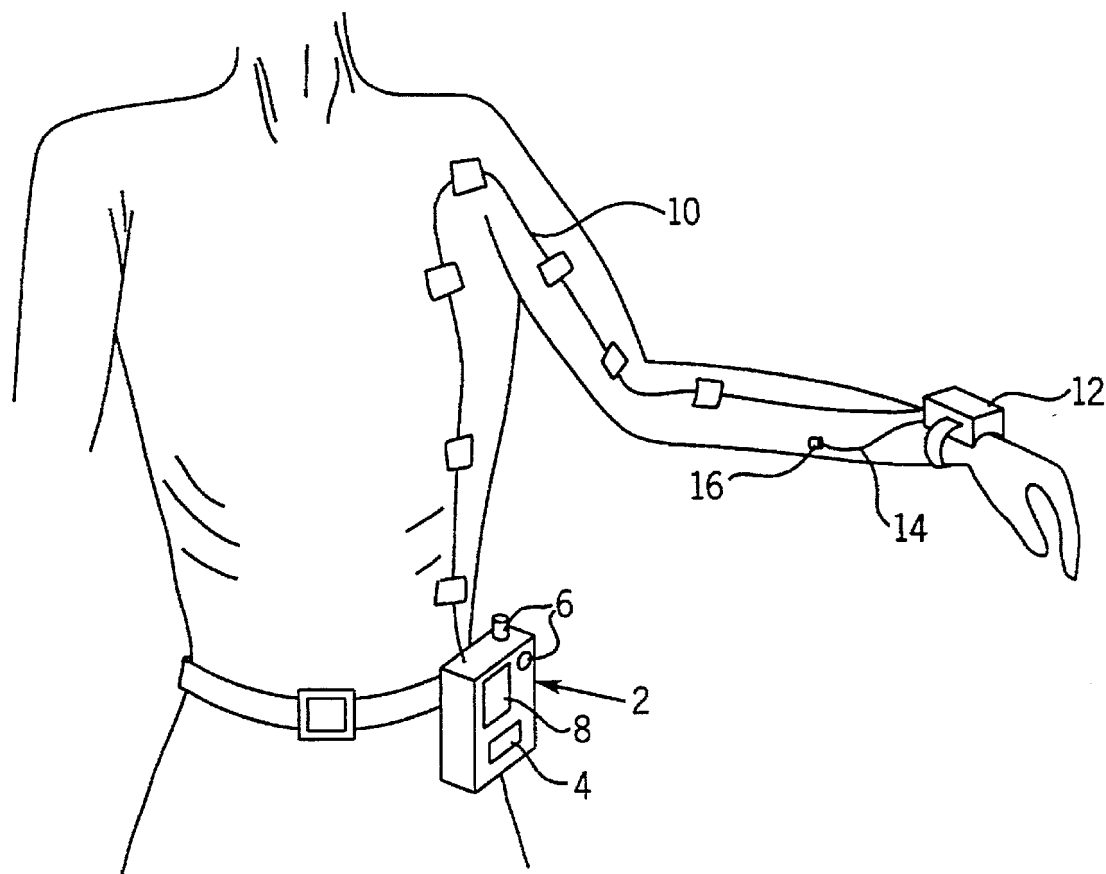
Family 4/8 - FAMPAT - ©Questel

Title

(EP-891203)

Sonophoretic drug delivery system

Images



Publication data including kind & date

US5656016	A	1997-08-12	US5656016
WO9734656	A1	1997-09-25	WO9734656
CA2249572	A1	1997-09-25	CA2249572
AU2076897	A	1997-10-10	AU9720768
EP0891203	A1	1999-01-20	EP-891203



Abstract

(EP-891203)

The present invention relates to devices and methods for enhancing the rate and efficacy of permeation of a drug into and through skin and into the circulatory system utilizing ultrasound. A transducer receives electrical signals from a generator and transforms it into ultrasound at a preselected frequency. The ultrasound is transmitted from the transducer to the application site via an acoustic transmission line. In a closed loop embodiment a sensor, e.g. a temperature sensor, provides a feedback signal via a control electronic circuit to the generator.

Inventors

OGDEN JOHN E

Latest standardized assignees - inventors removed

HOSPIRA

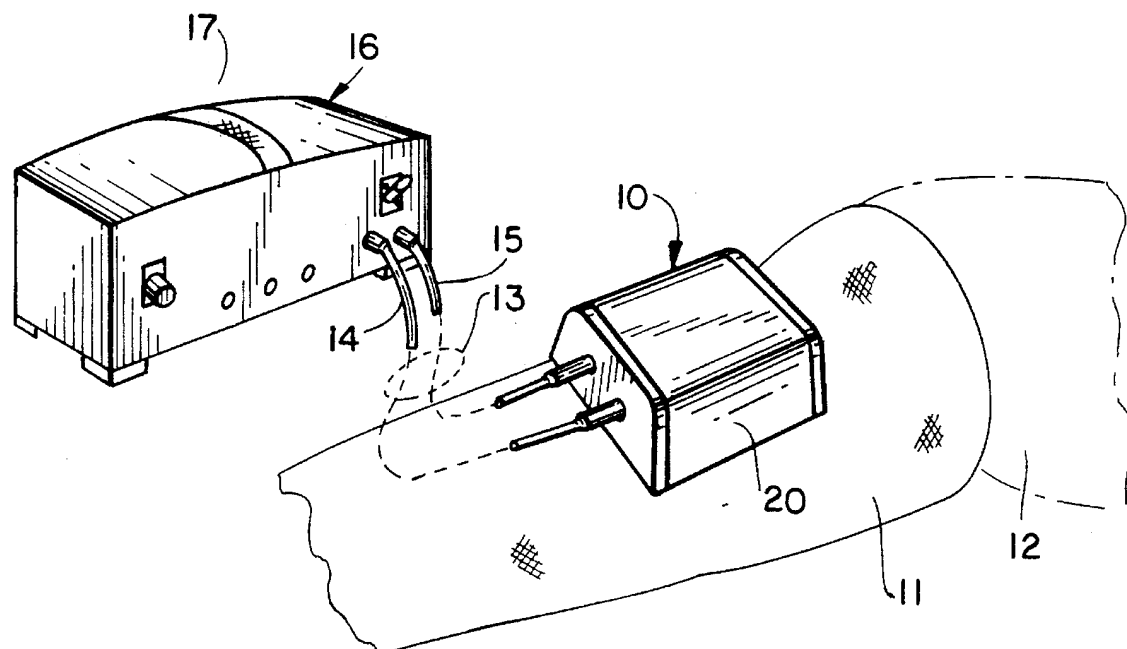
Family 5/8 - FAMPAT - ©Questel

Title

(EP-802770)

Acoustic system for bone-fracture therapy

Images



Publication data including kind & date

US5520612	A	1996-05-28	US5520612
WO9620651	A1	1996-07-11	WO9620651
CA2206242	A1	1996-07-11	CA2206242
JPH08187265	A	1996-07-23	JP08187265
AU1924495	A	1996-07-24	AU9519244
TW283087	B	1996-08-11	TW-283087
JPH08332209	A	1996-12-17	JP08332209
EP0802770	A1	1997-10-29	EP-802770
MX9704906	A	1997-10-31	MX9704906
CN1171730	A	1998-01-28	CN1171730
NZ282199	A	1998-04-27	NZ-282199
KR19987000883	A	1998-04-30	KR19987000883
EP0802770	A4	1999-02-24	EP-802770
AU702853	B2	1999-03-04	AU-702853
BR9510480	A	1999-06-29	BR9510480
BRPI9510480	A1	1999-06-29	BRPI9510480
EP0802770	B1	2000-12-20	EP-802770
AT198133	T	2001-01-15	ATE198133
DE69519686	D1	2001-01-25	DE69519686
DK802770	T3	2001-03-05	DK-802770T
ES2154331	T3	2001-04-01	ES2154331
PT802770	E	2001-04-30	PT-802770
GR3035474	T3	2001-05-31	GR3035474
DE69519686	T2	2001-08-02	DE69519686
BRPI9510480	B1	2002-10-29	BR9510480
KR100354160	B1	2003-01-30	KR100354160
CN1123324	C	2003-10-08	CN1123324C
CA2206242	C	2005-08-23	CA2206242



Abstract

(EP-802770)

A transducer (10) for non-invasive transcutaneous transmission of pulsed ultrahigh-frequency acoustic radiation, in body

tissue and/or fluids adjacent a bone fracture is "on target" when a fraction of the propagated energy within the longitudinal-response lobe of the transducer encounters a gap or space between closely spaced fracture walls. The ultrahigh-frequency acoustic radiation sees this "on target" feature as the entrance to a waveguide, whereby pulsed ultrahigh-frequency acoustic radiation is guided within the crack. When this acoustic radiation encounters a gap of at least a quarter wavelength (at the ultrahigh frequency), a standing wave condition establishes itself, with dissipation of the ultrahigh frequency and with demodulation to establish a therapeutically beneficial low-frequency acoustic condition, within the fracture, and acting where most needed, namely, on and between wall regions of adjacent fragments of the broken bone.

Inventors

WINDER ALAN A

TALISH ROGER J

RYABY JOHN P

Latest standardized assignees - inventors removed

EXOGEN

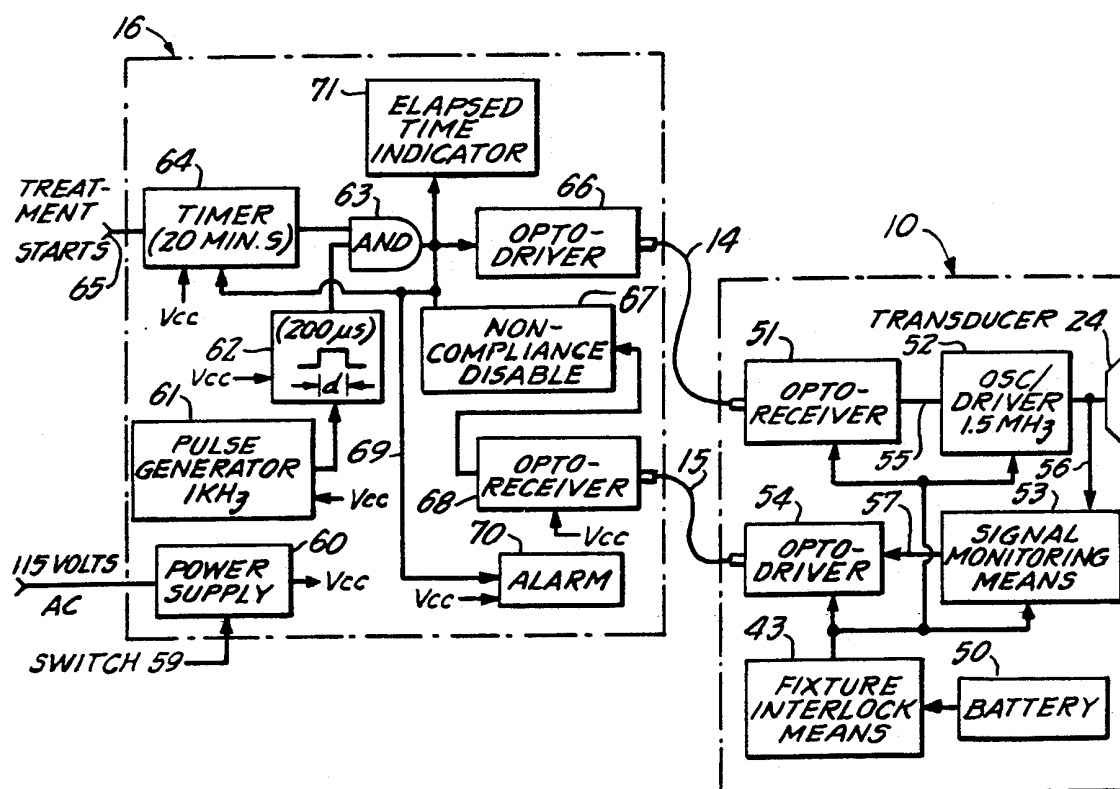
Family 6/8 - FAMPAT - ©Questel

Title

(US5186162)

Ultrasonic transducer device for treatment of living tissue and/or cells

Images



Publication data including kind & date

US5003965	A	1991-04-02	US5003965
US5186162	A	1993-02-16	US5186162
CA1328485	C	1994-04-12	CA1328485



Abstract

(US5186162)

The invention contemplates an improved body-applicator unit forming a component of an ultrasonic bone-therapy system exemplified by the disclosure of copending patent application Ser.No. 247,105, filed Sep. 14, 1988 now U.S. Pat. No. 5,003,965. The improvement features transducer suspension from the rest of the applicator unit via a molded sylphon-

bellows element of softly compliant elastomeric material, wherein the transducer is a flat disc, retained as the outer closure wall of the elastomeric bellows, in such manner as to be surrounded by a flexible gel-retaining circumferential lip formation of the bellows.

Inventors

TALISH ROGER J

LIFSHEY ARTHUR L

Latest standardized assignees - inventors removed

EBI VICTORIA

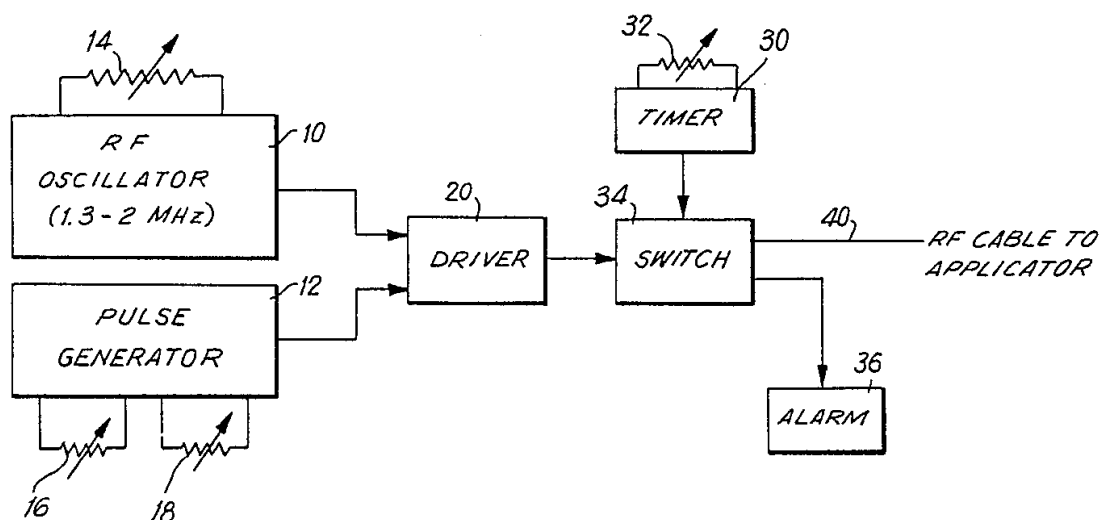
Family 7/8 - FAMPAT - ©Questel

Title

(US4530360)

Method for healing bone fractures with ultrasound

Images



Publication data including kind & date

[BR8107560](#) A 1983-07-05 BR8107560

[US4530360](#) A 1985-07-23 US4530360



Abstract

(US4530360)

An apparatus and method for healing bone fractures, pseudoarthroses and the like with the use of ultrasound. An ultrasound transducer, in contact with the skin of the patient, transmits ultrasound pulses to the site of the bone defect. The nominal frequency of the ultrasound is 1.5 MHz, the width of each pulse varies between 10 and 2,000 microseconds, and the pulse repetition rate varies between 100 and 1,000 Hz. The power level of the ultrasound is maintained below 100 milliwatts per square centimeter. Treatments which last no more than about 20 minutes per day have been found to heal defects in a wide variety of cases in less than two months.

Inventors

DUARTE LUIZ R

Latest standardized assignees - inventors removed

EXOGEN

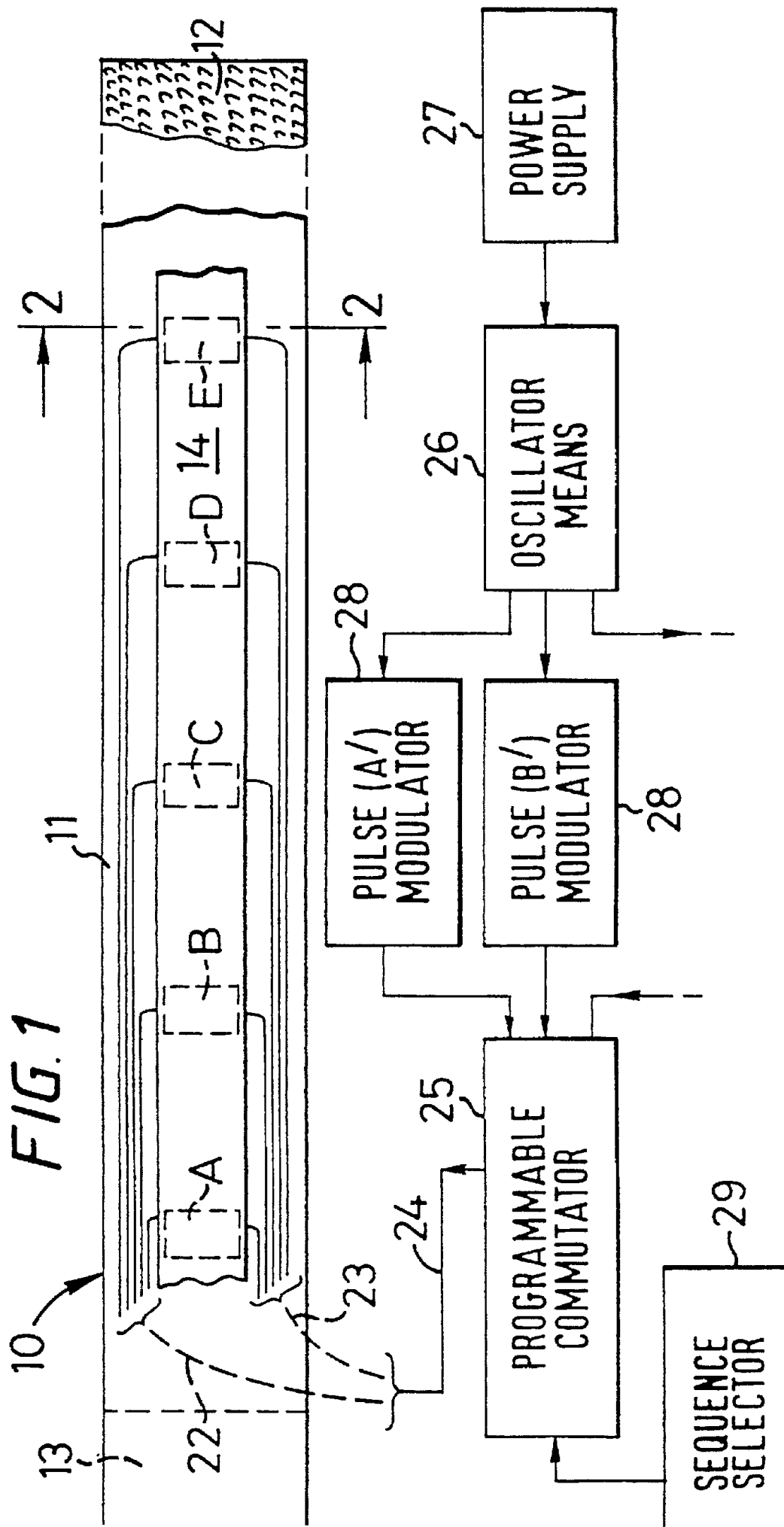
Family 8/8 - FAMPAT - ©Questel

Title

(EP-679371)

Ultrasonic therapeutic system

Images



Publication data including kind & date

GB9408668	D0	1994-06-22	GB9408668
GB9507377	D0	1995-05-31	GB9507377
GB2288741	A	1995-11-01	GB2288741
EP0679371	A1	1995-11-02	EP-679371
AU1762095	A	1995-11-09	AU9517620
ZA9503345	B	1996-01-11	ZA9503345
JPH0898863	A	1996-04-16	JP08098863
NZ272009	A	1997-02-24	NZ-272009
US5656015	A	1997-08-12	US5656015
GB2288741	B	1998-03-11	GB2288741
AU691253	B2	1998-05-14	AU-691253
EP0679371	B1	2002-07-24	EP-679371
AT220880	T	2002-08-15	ATE220880
DE69527468	D1	2002-08-29	DE69527468
DK0679371	T3	2002-11-18	DK-679371T
PT679371	E	2002-12-31	PT-679371
ES2180610	T3	2003-02-16	ES2180610
DE69527468	T2	2003-02-20	DE69527468

**Abstract**

(EP-679371)

A plurality of spaced ultrasonic piezoelectric transducers (A to H), may be so fixed by means of a bandage (10) or the like to and around an afflicted area of a patient as to enable their sequential or interlaced excitation, whereby the afflicted area of the patient can be excited from different aspects, so that ultrasonic energy is not permitted to enter the body from any single point on a continuous-wave basis. Each transducer (A to H) delivers its ultrasonic energy via a body of material (14) having a wave impedance that substantially matches the wave impedance of human soft tissue, thereby avoiding or minimising the annoyance of a mismatched entry into the patient's body. The net result is for the patient to derive the therapeutic benefits of a moving applicator, without any physical displacement of one with respect to any other of the plural spaced transducers. <IMAGE>

Inventors

YOUNG MICHAEL JOHN RADLEY

Latest standardized assignees - inventors removed

ORTHOSONICS