United States Patent [19]

Monaghan

[11] **3,908,634**

[45] **Sept. 30, 1975**

[54] **METHOD AND APPARATUS FOR INDUCING LOCALIZED ANALGESIC CONDITION**

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[22] Filed: **Sept. 7, 1973**

[21] Appl. No.: **395,290**

Related U.S. Application Data

[63] Continuation-in-part of Ser. No. 171,450, Aug. 13, 1971, abandoned.

[52] **U.S. Cl.** ..... **128/1 R;** 128/1 C; 179/1 AA

[51] **Int. Cl.**[2] **A61M 21/00**

[58] **Field of Search** ..... 128/1 C, 1 R; 179/100.2 R, 179/1 AA

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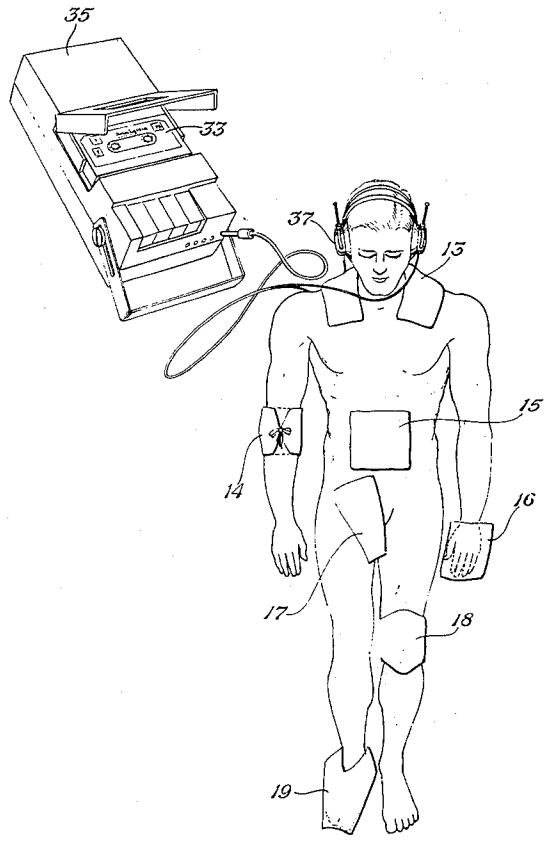
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[57] **ABSTRACT**

Method and apparatus for inducing localized analgesic condition, characterized by a fixation inducing means such as a pad that simulates the presence and pressure of a hypnotherapist, a prerecorded record containing the speech that the hypnotherapist would normally make to the patient and a player for playing the record; thereby enabling auto-conditioning the patient's muscular-nervous-skeletal systems to induce an analgesic condition in a patient at the site of pain or prospective pain.

8 Claims, 10 Drawing Figures



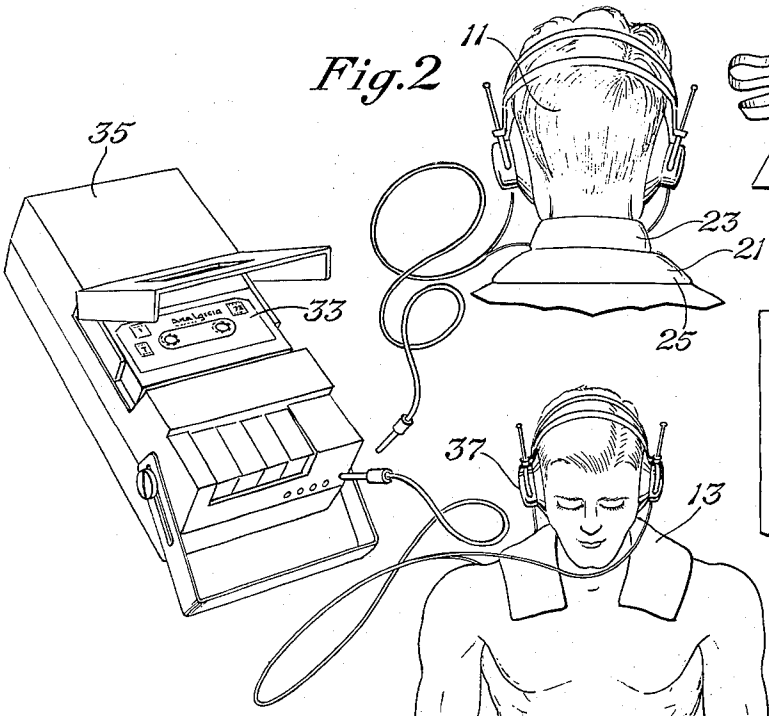


Fig.1

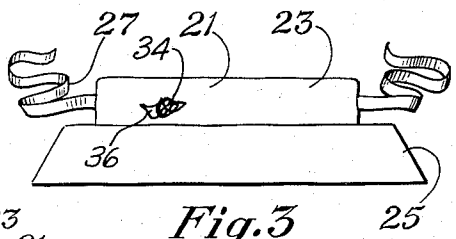


Fig.3

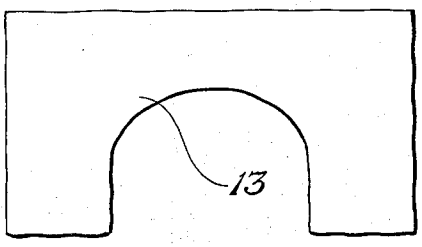


Fig.4

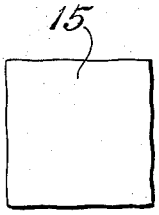


Fig.5

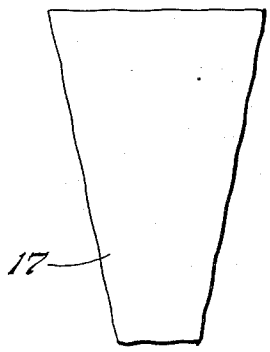
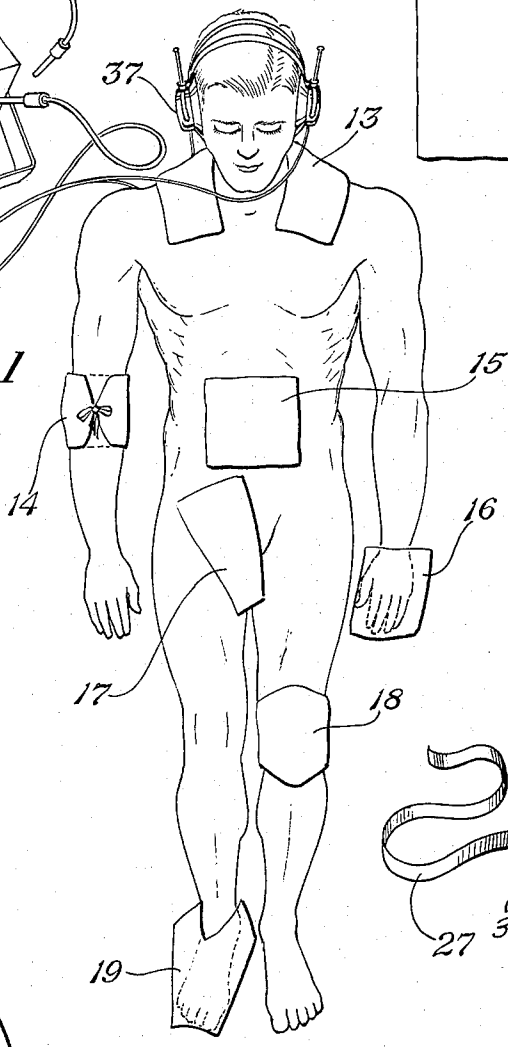


Fig.6



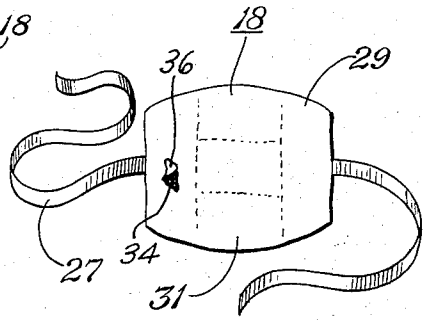


Fig.7

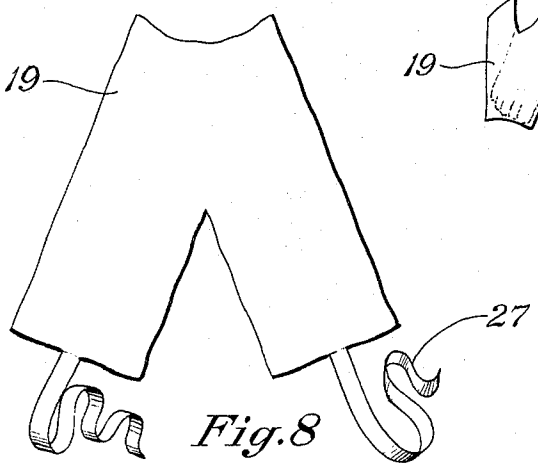


Fig.8

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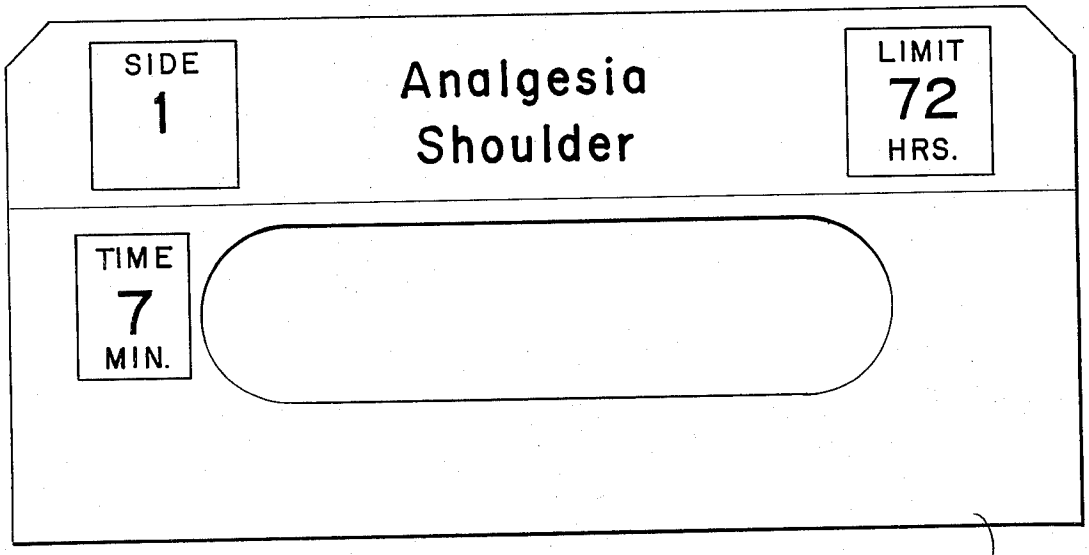


Fig.9

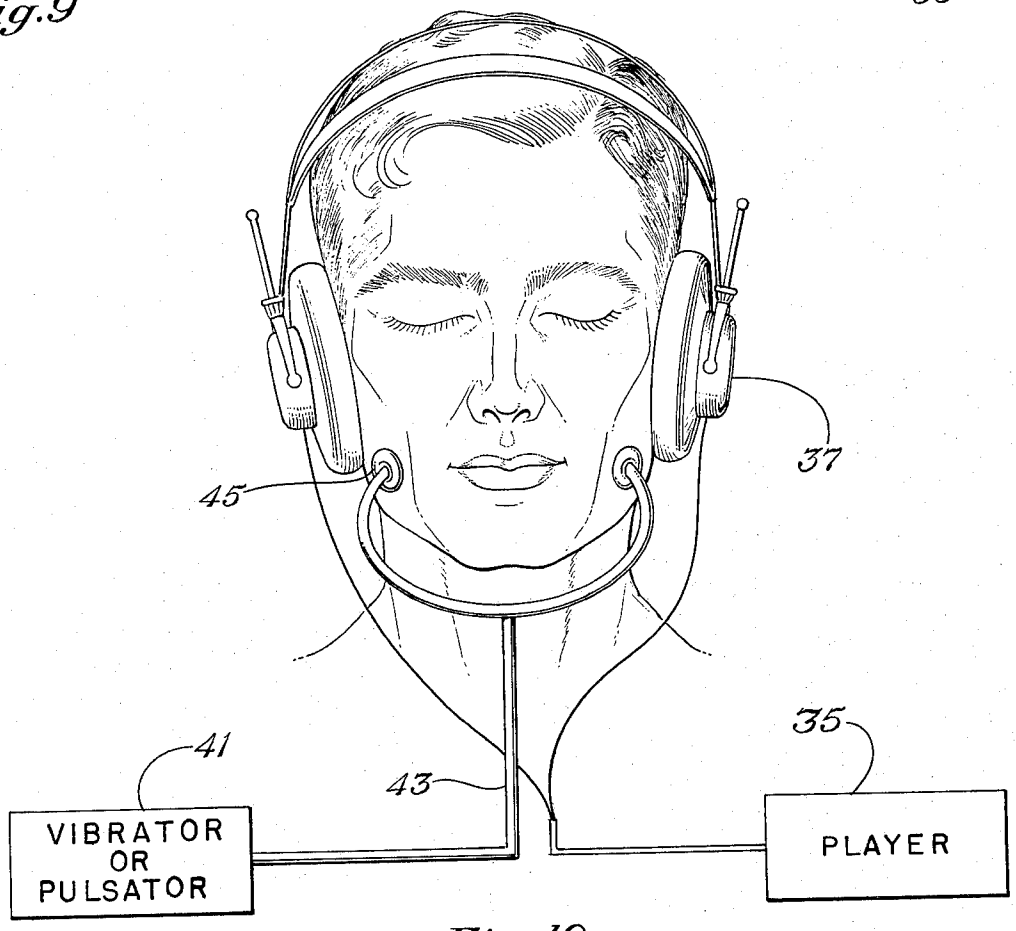


Fig. 10

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METHOD AND APPARATUS FOR INDUCING LOCALIZED ANALGESIC CONDITION

CROSS REFERENCE TO RELATED APPLICATION

This application is a continuation-in-part of my earlier filed patent application Ser. no. **171,450,** filed Aug. **13, 1971** and entitled "Method and Apparatus for Inducing Localized Analgesic Condition" now abandoned.

BACKGROUND OF THE INVENTION

1. Field of the Invention

This invention relates to improved method and apparatus for use of hypnosis for inducing a localized analgesic condition at the site of pain or prospective pain in a patient without requiring chemical anesthetic or the presence of a hypnotherapist.

2. Description of the Prior Art

Hypnotism is known to induce a hypnotic trance for treating pain or for operating on a patient where advisable. chemically induced anesthesia is not available. One of the dangers of operating on patients who are in a hypnotic trance is that of the inability of the patient to communicate with the doctor. If, for example, the anesthesia is ineffective, the patient, not able to relay his fears to the physician, may become hysterical. The hysteria serves as his only means to escape from a painful situation quickly. Such a reaction is detrimental to the image of the doctor and hypnosis alike.

Modern hypnotherapists rely upon "post hypnotic suggestion" to overcome the above-cited danger. If the patient has accepted a reliable post hypnotic anesthesia he is able to submit to any surgery, retaining normal conscious awareness, and therefore in a position to immediately tell the doctor that repeated induction or local anesthesia is called for, precluding the danger of hysteria.

Also, hypnotism is known for inducing an analgesic condition in a localized area or site. For example, the hypnotherapist may apply a pressure to a localized area to draw the patient's attention thereto and simultaneously hypnotize the patient to induce the desired analgesic condition. The problem is that there are not enough qualified hypnotherapists; particularly those that are also medical doctors. Also, the combination of the use of a medical doctor and a hypnotherapist is expensive.

The prior art has seen the development of the use of recordings to induce a hypnotic trance in a patient. Moreover, a method of transferring hypnoanesthesia from one part of the body; for example, from a finger; was mentioned by Wolfe, Techniques of Hypnotherapy, LeCron, **1961,** page **196.** This method of transferring the anesthesia from one part of the body to the desired site is effected by: (**1**) inducing the anesthesia into the part of the body and (**2**) touching the site wherein the analgesic condition is to be induced; and is often referred to as "the magic finger" technique. In this method, the patient has the analgesic condition induced into the finger first and then transferred to the site. A method similar to the "magic finger" method is described in a United States patent. That patent also describes some of the other problems in achieving widespread use of hypnotherapy. As pointed out therein, music and sound have been used as distraction devices in psychotherapy and in suggestive therapy but are less than satisfactory.

Acceptance of hypnotic anesthesia or analgesia by suggestion alone, without the physical contact, or fixation, is unique to exceptionally suggestable subjects entering the somnambulistic state. It is generally recognized that not more than **22** percent of the subjects can be expected to attain this depth of suggestability.

Insofar as I am aware no one has successfully devised a means of eliminating a need for the presence of the hypnotist or physician-hypnotist in the induction of analgesia or anesthesia. In the closest method of the prior art, as described in the above-referenced patent, the doctor must be trained in the art of instruction of the patient to accept or transfer anesthesia. It is obvious that the doctor could not do this without training participation. Few doctors are qualified to pre-record hypnotically oriented tapes or records. At best, some of the prior art methods could work with only about **22** percent of the individuals and require a knowledgeable physician to effect a reduction in sensitivity to pain, the reduction being limited to the duration of the operative procedure.

SUMMARY OF THE INVENTION

Accordingly, it is an object of this invention to provide method and apparatus for inducing an analgesic condition in almost all patients at a site of pain or prospective pain without requiring chemicals; without requiring the presence of a trained hypnotherapist; and without requiring music or extraneous sounds to minimize sensitivity to pain; thereby obviating the disadvantages of the prior art methods and apparatus.

In accordance with this invention, there is applied to a site where anesthesia is to be induced a fixation inducing means for drawing the patient's attention to the site; the fixation inducing means such as a pad having a sufficient conforming fit and force to apply a pressure to the site; and, simultaneously, a record is played by a record player to auto-condition the patient's muscular-nervous-skeletal systems by playing the speech that the hypnotherapist would normally make to the patient. The physical pressure of the fixation inducing means combined with the speech on the prerecorded record such as a tape simulate the presence and pressure of a hypnotherapist; and I have found that, with proper conditioning, almost all subjects can be expected to respond to the light trance such that hypnotic anesthesia or analgesia can be anticipated where the contact, or fixation, is employed; contrary to the prior art methods relying solely upon suggestion. More specifically, this invention, in either the method or apparatus embodiments, employs suggestions that are presented via recorded tape to instruct the patient to progressively relax all the muscles of the body. Once the patient is relaxed he is in a light to medium trance condition. His attention is directed to the pad that affords the requisite fixation at the site. He responds to suggestions asking him to think of the warmth of his own body generating matter in the pad, which in turn creates numbness. It is further suggested that the numbness, or anesthesia, will remain with the patient for a specified period of time which may be for hours, days, or longer. The patient is awakened by the recording and retains the numbness.

DESCRIPTION OF THE DRAWINGS

FIG. 1 is a combination perspective and plan view of the supine patient employing apparatus in accordance with one embodiment of this invention.

FIG. 2 is a partial plan view of an embodiment of this invention employing another type of pad for a difficultly fittable site, or portion, of the anatomy.

FIG. 3 is a plan view of a pad such as employed for the neck, as in the embodiment of FIG. 2.

FIG. 4 is a plan view of a pad such as employed on the shoulder.

FIG. 5 is a plan view of a simple pad that might be employed for a hand, back or abdomen; depending upon the size of the pad.

FIG. 6 is a plan view of a pad which might be employed for a hip.

FIG. 7 is a plan view of a pad which might be employed for a joint of the anatomy; for example, the knee or elbow.

FIG. 8 is a plan view of a pad which may be employed for the foot or ankle.

FIG. 9 is a side elevational view of a typical decal for application to the tapes used in one embodiment of this invention.

FIG. 10 is a front elevational view of an embodiment of this invention which has application in inducing analgesia for dental work.

DESCRIPTION OF PREFERRED EMBODIMENTS

Referring to FIG. 1, a patient 11 is illustrated with a plurality of fixation inducing means as pads 13–19 emplaced at localized sites of pain or prospective pain. The fixation inducing means must draw the patient's attention to a particular area for the purpose of relieving discomfort through auto-conditioning of the patient's muscular-nervous-skeletal systems by acceptance of suggestions from a record means containing a speech by the hypnotherapist. As illustrated, the pads have sufficient weight distribution and conforming fit to draw the patient's attention to the site and thereby simulate the presence and pressure of the hypnotherapist. Simulating the pressure of the hand of the hypnotherapist requires a loading of more than about 0.2 ounce per square inch (oz./sq./in.). Ordinarily, up to one or more ounces per square inch can be employed successfully. The pads 13–19 should have a sufficiently unfamiliar shape and weight that the patient can feel that the pad has special qualities under the influence of the suggestion from the tape. Ordinarily, the patient will have only a single pad applied and the record will be selected in accordance with the site into which the analgesic condition is to be induced. As illustrated in FIGS. 2–8, the pads come in a wide variety of conforming shapes. For example, as illustrated in FIGS. 2 and 3, a neck pad 21 may comprise a plurality of chambers 23 and 25 that are circularly disposable for conformingly fitting about the neck. To retain the pad in place, tie strings 27 are provided. In like manner, a shoulder pad 13 is illustrated in FIG. 4 for emplacement about the shoulders. If desired, the shoulder pad may be divided into a plurality of chambers also. As illustrated in FIG. 5 a regularly shaped pad 15 may be employed for use on relatively flat areas such as the back or abdomen. A smaller pad of regular shape, similar to that illustrated in FIG. 5, or a glove or mitten having the requisite unfamiliar feel and weight or force may be employed for areas such as the hand. As illustrated in FIG. 6, a less regularly shaped pad 17 may be required to fit in the hip region. As illustrated in FIG. 7, a shaped pad 18 having arcuate sides and a plurality of chambers 29 and 31 may be required to fit joints such as the elbow or knee. Still more irregularly shaped pads 19 may be required to fit the feet or ankles and provide the requisite weight distribution to draw the patient's attention to the local site. Suitable draw strings 27 may be employed also on the irregularly shaped pads, as illustrated in FIGS. 7 and 8. The pads may be comprised of a plurality of chambers; illustrated by chambers 23 and 25, FIG. 3, or chambers 29 and 31, FIG. 7; which are filled with a plurality of small particles, or pellets 34. The pellets 34 are revealed only for purposes of illustration, the flap 36 being an integral part of the fabric normally. I have found, for example, that beans, plastic or *b—b* pellets effect the desired flexibility and weight distribution when flexible walls such as silky cloth are employed to define the respective chambers. The silky cloth bags of pellets that are being employed effect a pressure loading of about 0.4 ounce per square inch. The silky cloth containing the particles also has enough unfamiliar feel to enable the patient to respond to the suggestions on the tape.

In FIG. 1, a record means for preserving oral communication is illustrated by tape cassette 33 containing a tape therewithin. The tape has recorded thereon a speech that a hypnotherapist would normally make to the patient if the hypnotherapist were present. As illustrated in FIG. 9, the cassette tape has a lavel so that it may be selected in accordance with the particular pad, the time the analgesia is to be induced and the time that the patient is to be auto-conditioned. For example, as illustrated in FIG. 9, the cassette 33 is selected to induce analgesia into the shoulder for a period of 72 hours and will play for 7 minutes. It is employed in conjunction with a shoulder pad 13, FIG. 1.

The record, or tape, is played by a transducing means, illustrated as tape player 35, for transducing the speech from the tape into auditory sensations perceivable by the patient. Specifically, the tape player 35 has speaker means for directing speech into the patient's ears. The speaker means take the form of headset 37. Any other forms of records and transducing means; for example, disc records and record players, with speakers built-in or in the form of headsets; may be employed as most convenient. The headsets are preferable, since they block out other auditory sensations and enable the patient to concentrate more on the instructions from the tape, in combination with the fixation induced by the particular pad being employed; such as, shoulder pad 13.

In operation, a recorded message is devised for use with a particular pad, or fixation inducing means, placed on a given portion of the body. Since the patient is conditioned to long term anesthesia by accepting a 24 hour anesthesia, then a 72 hour and so forth, the tapes are prepared for each stage so they may be selected to induce the longer anesthesia gradually. The tapes and the pads are then correlated and distributed, with appropriate instructions, to the doctors for use, without requiring the presence of the hypnotherapist.

The doctor selects the tape cassette, on which is indicated the site and the pad to be used adjunctively therewith and on which is indicated the desired duration of the anesthesia — 24 hour, 72 hour, 7 days, etc. The

doctor or his assistant places the appropriate pad on the site of the patient's body. He places the earphone on the patient's head, or instructs the patient to do so. The patient is advised to make himself comfortable and, with eyes closed, listen to the recorded message. The message is a speech that the trained hypnotherapist has made for the desired stage of analgesia inducement and the site and pad indicated.

As indicated, the label on the cassette also contains the time duration of the recording itself. At the approximate conclusion of this time limit, the doctor or his assistant observes the patient for signs of awakening. When the patient has awakened, the doctor or his assistant removes the pad and the earphones from the patient. The patient is questioned about the effectiveness of the anesthesia. Thereafter, the doctor may perform the necessary manipulation or operation; or, if a painful condition is relieved, the patient may be discharged, or allowed to go home. In case of chronic pain the doctor may prescribe the use of the tapes and the analgesic pads for the patient's continued use in the patient's own home.

Another embodiment for use in dental applications is illustrated in FIG. **10.** Therein, a vibrator or pulsator **41** is connected by suitable transmission means such as hollow conduit **43** to suitable pad means **45** for conformingly fitting and applying the requisite pressure to draw the patient's attention to the site where the analgesia is to be induced. For example, the pad means **45** may be emplaced on the exterior of the cheeks to apply pressure to the gum region where pain is located or where an operation is to be performed. The pad means **45** may take the form of a hollow rubber tip for conformingly fitting over a given area, but transmitting the vibration or pulses from the vibrator **41.** On the other hand, it may take the form of a transducing crystal such as a piezoelectric or magnetostrictive means that is responsive to electrical excitation afforded by a pulsator **41.** As described hereinbefore, the tape is played via tape player **35** into the headset **37** for inducing the analgesia.

In operation, the same procedure is employed as described hereinbefore. That is, the tape is made up by a professional hypnotherapist. The dentist or assistant applies the pad means **45,** starts the vibrator **41;** emplaces the headset **37** on the patient and starts the player **35,** advising the patient to close his eyes. After the expiration of the indicated time on the cassette, the assistant observes the patient for awakening and the doctor tests the patient for the desired analgesia inducement. As implied from the description hereinbefore, the doctor may then perform the operation, drilling, or otherwise treat the patient as indicated. If desired, blindfolds may be employed by the patient to lessen distractions during the auto-conditioning of the patient.

From the foregoing descriptive matter it can be seen that this invention provides a means for induction of anesthesia; for example, for relief from pain or for use in operative procedures where chemical anesthesia is deemed unwise. It has a far greater application in allaying post-operative pain than chemically induced anesthesia, and the anesthesia may be prolonged for any length of time; the length of time being determined in the pre-recorded record means. This invention is valuable in controlling chronic pain which is not serving any diagnostic or healing purpose and is particularly valuable in the treatment of arthritis, bursitis, pains of the lower back and terminal cancer where the prolonged use of undesirable drugs is often a necessity without this invention. No transference of numbness from one area of the body to another is necessary and no patient participation is required other than listening. No participation is required of the doctor other than instructing the patient to place the earphones on his head and listen, this duty being easily performable by a doctor's assistant or an instructed individual without special training being required. Thus, it can be seen that this invention accomplishes the objects expressed and implied hereinbefore. In addition, this invention effects all of the advantages described in the aforementioned Pat. No. **3,205,316.**

While the invention has been described in a certain amount of detail, it will be understood that such description and detail has been given by way of illustration and example and not by way of limitation. Many modifications will be suggested to those skilled in the art which do not go beyond the scope of this invention and it is therefore intended that the invention cover those modifications.

What is claimed is:

1. A method of inducing an analgesic condition in a patient to relieve the patient's pain at a site of pain or prospective pain comprising the steps of:

a. drawing a patient's attention to said site and simulating the presence and pressure of a hypnotherapist by applying to the site a conformingly fitting fixation inducing means adapted therefor and supplying a force of at least **0.2** ounce per square inch to said site; and

b. simultaneously auto-conditioning the patient's muscular-nervous-skeletal systems by playing to the patient, without requiring the presence of the hypnotherapist, a pre-recorded record means containing the speech that the hypnotherapist would normally make to the patient if he were present and achieving the analgesic condition; said speech referring suggestively to said fixation inducing means and its analgesic condition-inducing qualities.

2. A combination for inducing an analgesic condition in a patient to relieve the patient's pain at a site of pain or prospective pain comprising:

a. a fixation inducing means for inducing fixation for inducing an analgesic condition at said site, said fixation inducing means conformingly fitting said site and applying to said site a weight distribution and force of at least **0.2** ounce per square inch and sufficient to effect a patient's awareness and draw the patient's attention to said site, thereby simulating the presence and pressure of a hypnotherapist;

b. a pre-recorded record means preserving oral communication containing a speech that a hypnotherapist would normally make to the patient if he were present; said speech on said pre-recorded record means suggestively referring to said site and the presence of said fixation inducing means for cooperatively inducing said analgesic condition at said site; and

c. transducing means for transducing said speech from said record means into auditory sensation perceivable by said patient so as to induce said analgesic condition at said site in said patient; said transducing means being in sound communication with said patient so as to connect via said patient

said fixation inducing means and said record means.

3. The combination of claim 2 wherein said fixation inducing means is a pad having said sufficient conforming fit and weight distribution to apply said force.

4. The combination of claim 3 wherein said weight distribution is no more than 1 ounce per square inch.

5. The combination of claim 3 wherein said pad comprises a relatively thin container having flexible walls with a silky finish for unfamiliarity to the patient and containing a plurality of small pellet particles for effecting the requisite said weight distribution.

6. The combination of claim 5 wherein said container has a plurality of discrete chambers for effecting the requisite said conforming fit.

7. The combination of claim 2 wherein said record means is a tape and said transducing means is a tape player having speaker means for directing the speech into the patient's ears.

8. The combination of claim 2 wherein said fixation inducing means comprises a vibratory means and at least one pad that is adapted to fit a patient's facial region at a site for dental purposes.

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