

(54) Title of the invention : MOBILE CONTROLLED MICROCONTROLLER BASED FOUR IN ONE PAIN SOOTHING COMBO BELT THAT COMPRISING OF PROM-PAIN-RELIEF-OINTMENT-MASSAGER AND MRV-MUSCLE-RELUCTANT-VIBRATOR AFTER PROVIDING WCHFT-WARM-COOL-HYDRO-FOMENTATION-THERAPY.

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(57) Abstract :

Generally hot-cold therapy is used to get relief from the aching pain of muscle or tender joints. This therapy is also very effective for Lower and upper back pain, Neck stiffness, Knee pain, Wrist-hand pain. Cold therapy decreases the blood flow of the injured area and reduces the rate of inflammation. Similarly heat therapy dilates the blood vessels and helps to relax the muscle. Beside this, some time we need massage and Pain relieving Ointment to alleviate from the muscle pain. In our proposed work we create a Microcontroller Operated four in one multipurpose pain relieving belt which provides an effective WCHFT-Warm-Cool-Hydro-Fomentation-Therapy to increase blood circulation over nerves and blood vessels, pain relieving ointment massager and muscle reluctant vibrator to get relief from muscle pain as well as fatigue. In first section we can use a cooling pad in which we can put ice manually to use it for cold therapy. In the second section we introduce a shock proof water warming pad where a nichrome-copper coil has responsible for water warming and fabricated with a Water Temperature detection sensor (DS18B20). This sensor can be used to monitor the threshold boiling temperature of water. As per the user demand when temperature can reach at the program defined threshold value ,Temperature sensor (DS18B20) will send a positive cutoff signal to microcontroller and it makes an auto-cutoff of the relay module which itself attached with the nichrome-copper coil based water warming pad. So Boiling process can be stopped or re-initiate according to the user input. In third section we can propose a PROM-Pain-Relief-Ointment-Massager. By using PROR-Pain-Relieving-Ointment-Rollerball, pain relieving ointment can be applied to the muscle directly to get relief from the Ortho-muscular pain. We can put the pain killing ointment into the PROCC-Pain-Relieving-Ointment-Contained-Chamber with the help of Ointment-Injecting-Knob. PROCC is directly connecting with PROR. In the fourth section we can incorporate MCMV-Mobile-Controlled-Massaging-Vibrator which is used to create quiver in the muscle. When any massage is needed or pain is incorrigible then this portion can be used. This process can also controlled by UserTMs mobile phone via voice controlled Bluetooth app.

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