

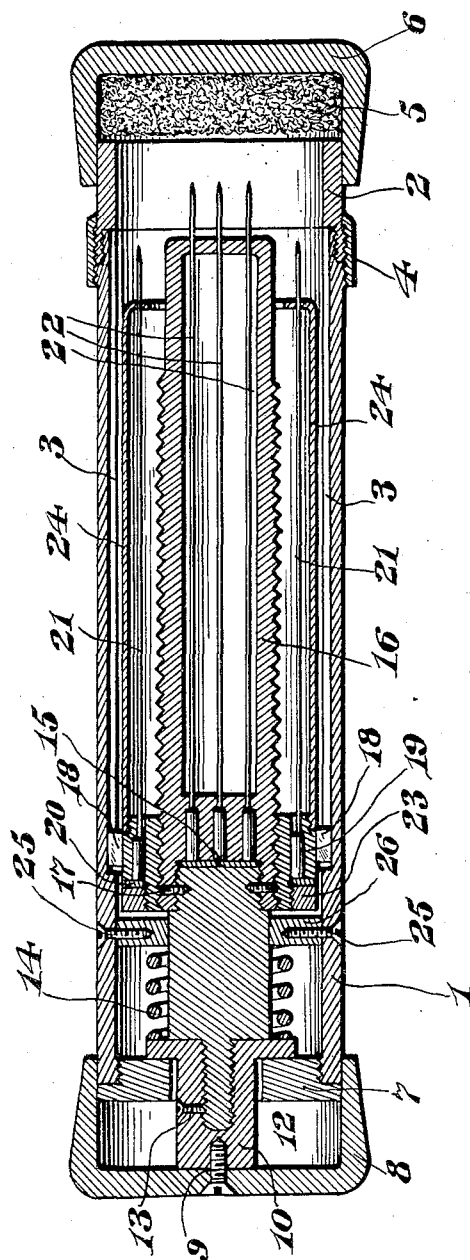
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STIMULUS ACUPUNCTURATOR

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## STIMULUS ACUPUNCTURATOR

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The present invention relates to stimulus acupuncturators, and the primary object of the invention is to provide a stimulus-acupuncturator which can be used for three different stimulus-acupuncture by an acupuncturator.

A further object of the invention is to provide a stimulus-acupuncturator, wherein the needles are thoroughly disinfected before each operation of the device.

A further object of the invention is to provide a stimulus-acupuncturator, in which the position of the needles can be easily controlled.

A still further object of the invention is to provide a stimulus-acupuncturator in which a broken needle may be replaced without the necessity of changing all of the needles.

Other objects and advantages of the invention will be apparent during the course of the following detailed description, taken in connection with the accompanying drawing forming a part of this specification and in which drawing:

The figure is a longitudinal section of an acupuncturator constructed in accordance with the present invention.

By referring to the drawing, it will be seen that 1 designates the outer tubular casing upon one end of which is threaded an extension 2, the threaded joint between the casing 1 and the extension 2 being covered by a narrow metal band

4. The tubular casing 1 is provided upon its inner face with a longitudinally extending channel 3. A disinfecting cap 6 is fitted over the outer end of the extension 2, within which cap 6 is mounted the sterilizing gauze or cotton 5 which sterilized

gauze or cotton may be soaked in a suitable disinfectant. The opposite end of the tubular casing 1 carries a threaded plug or end plate 7 constituting a closure for one end of the tubular casing 1. A cup-shaped operating cap 8 is slidably mounted upon one end of the tubular casing 1, as shown in the drawing, and a circular plug 10 is secured to the inner face of the cap 8 by means of a securing screw 9, the plug 10 having an annular inner head which contacts

with the inner face of the plug 7 and limits the outward movement of the cap 8 relatively to the plug 7. A shank 11 is carried by the circular plug 10 and is provided with a threaded extension 12 which fits within an internally threaded

bore formed in the plug 10 this threaded extension 12 being locked in anchored position against rotation by means of the locking screw 13. A coil spring 14 is mounted upon the shank 11 and engages the enlarged head of the plug 10 and

also contacts with the abutment seat 26 carried

by the tubular casing 1, this abutment seat 26 comprising a circular collar through which the shank 11 reciprocates. This abutment seat 26 is anchored in position by means of anchoring screws 25.

The shank 11 is provided with a forwardly extending externally threaded neck upon which forwardly extending externally threaded neck is threaded an elongated needle supporting housing 16, this needle supporting housing 16 being externally threaded for the purpose hereinafter described. The needle carrying housing 16 is locked upon the threaded neck of the shank 11 by means of suitable locking screws or pins 17. The needle carrying housing 16 is adapted to support a plurality of fine needles 22 which needles extend longitudinally of the housing 16 and protrude beyond the outer end of the housing 16. The inner ends of the needles 22 are fitted within the inner end of the housing 16 and abut against the seat plate 15, as shown. These needles may be removed when desired by disassembling the parts for the purpose or replacement should occasion require.

A collar 19 is threaded upon the externally threaded housing 16, and upon this collar 19 is threaded the outer needle carrying housing 24, the needles extending longitudinally of the housing 24 and protruding beyond the outer end of the housing 24. The housing 16 extends longitudinally through the housing 24 and the outer end of the housing 16 protrudes beyond the outer end of the housing 24. A stop collar 23 is threaded upon the collar 19 and engages a suitable seat plate 20 against which the inner ends of the outer needles, which may be referred to as the replenishment needles 21, abut. By removing the collar 23 and the seat plate 20, the needles 21 may be replaced, if desired.

The collar 19 carries a lug 18 which is slidably mounted in the channel 3 thereby permitting the collar 19 and its associated parts to slide longitudinally of the casing 1 as the cap 8 is pressed inwardly. Through the medium of the present device, different style needles, strong, weak and medium may be employed and the needles at all times may be properly disinfected. The forward and rearward movement of the needles through their supports may be easily controlled at the will of the operator for the purpose of producing an acupuncture easily and safely without injuring the skin or breaking the needle and without the necessity of employing an expert.

The operation of the device is as follows:—

The tubular casing 1 is grasped by the fingers of the operator and the cap 8 is pushed inwardly by the thumb or finger of the operator at which time the needles 22 will enter or penetrate into the sterilized gauze or cotton 5 for disinfecting or sterilizing the needles. The cap 6 may then be loosened and removed and the needles 22 may be permitted through the action of the spring 14 to return to their normal position. The outer end of the extension 2 is then placed against the skin and the casing by being gripped in the fingers of the operator may be properly held in position whereby a slight pressure upon the cap 8 by the thumb or finger of the operator, will produce a proper acupuncture by forcing the needles 22 beyond the end of the extension 2 for piercing the skin.

When it is desired to obtain a strong stimulus acupuncture the following method is pursued:— The cap 3 is rotated thereby turning the shank 11, and the housing 16 which carries the needles 22, and this will cause the collar 19 to be fed forwardly upon the external threads upon the housing 16 thereby forcing the needles 21 outwardly, the collar 19 being held against rotation by being free to slide longitudinally of the tubular casing 1 due to the fact that the lugs 18 will slide within the channels 3. The outer housing 25 will of course move with the needles 21 longitudinally of the tubular casing 1. The operation is continued until the outer ends of the needles 21 are in line with the outer end of the line of the needles 22. Then by pushing inwardly upon the cap 3 both the outer needles 21 and the inner needles 22 will penetrate the skin.

When it is desired to obtain a medium stimulus acupuncture the cap 8 is rotated until the outer ends of the needles 21 project a suitable distance beyond the ends of the outer needles 22, at which time only the outer needles 21 may produce the desired acupuncture. A reversal of the rotation of the cap 8 will return the parts to the desired position, the inward movement of the collar 19 being limited by means of the abutment seat 26.

From the foregoing description, it will be seen that merely by rotating the cap 8 relative to the outer tubular casing 1, the relative positions of the needles 21 and 22 may be adjusted to obtain the desired acupuncture. Furthermore, by means of the structure illustrated the needles 21 and 22 will be properly braced and due to the fact that these needles preferably possess considerable elasticity there will not be a tendency for the needles to break even when obtaining an acupuncture through hard parts of the skin. It should be understood that the needles 21 and 22 are individually removable from the supports in order to permit any individual needle to be replaced when desired.

What is claimed as new is:—

1. A device of the class described comprising an outer casing, an inner needle carrying housing mounted within said outer casing, needles

carried by the inner needle carrying housing, means for moving said needles longitudinally of said outer casing, a series of outer needles mounted for movement longitudinally of said inner needle carrying housing, and means for moving the outer series of needles longitudinally of the inner needle carrying housing for permitting the inner and outer series of needles to be selectively as well as uniformly brought into action.

2. A device of the class described comprising an outer casing, an inner needle carrying housing reciprocally mounted within said casing, a collar carried by said inner needle carrying housing and threaded thereon, an outer needle carrying housing carried by the collar, needles carried by the inner housing, needles carried by the outer housing, means for mounting said collar against rotating movement with respect to the casing and permitting longitudinal movement of the collar, and means for rotating the inner needle carrying casing for moving said collar and outer needle carrying housing longitudinally upon the inner needle carrying housing.

3. A device of the class described comprising an outer casing, a cap slidably mounted upon said outer casing, an inner needle carrying housing reciprocally mounted within said casing and operable from said cap, spring means for normally holding the inner needle carrying housing in a retracted position, an outer needle carrying housing threaded upon said inner needle carrying housing, means for holding the outer needle carrying housing against rotation with respect to said casing whereby said outer needle carrying housing will be moved longitudinally of the inner needle carrying housing as the inner needle carrying housing is rotated, needles carried by the inner needle carrying housing, and needles carried by the outer needle carrying housing.

4. A device of the class described comprising an outer casing, a cap slidably mounted upon said outer casing, an inner needle carrying housing reciprocally mounted within said casing and operable from said cap, spring means for normally holding the inner needle carrying housing in a retracted position, an outer needle carrying housing threaded upon said inner needle carrying housing, needles carried by the inner needle carrying housing, needles carried by the outer needle carrying housing, said casing having a longitudinally extending channel, a lug carried by the outer needle carrying housing slidably mounted in said channel for holding said outer needle carrying housing against rotation with respect to the casing and causing said outer needle carrying housing to move longitudinally of said inner needle carrying housing, the needles in each housing being individually removable, an abutment seat carried by said casing for limiting the return movement of said housings, and an extension removably threaded upon the outer end of said casing.

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