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Description

The present invention relates to an apparatus for the active gymnastics of the face and the neck.

Apparatus for this use are already known.

One of such apparatus comprises an elastic band to be applied between the chin and the head top and by which the active gymnastics can be done, see US-A-4650182. However, this elastic band involves only few muscles.

Another known apparatus is based on a passive stimulation of the involved muscles by means of electric pulses. However, by employing this apparatus the muscles can be stimulated only in a group of 2-4 at the time, thereby requiring a long time for doing a complete gymnastics of the face and the neck. Furthermore, if the apparatus is not used by skilled persons, it can result also harmful.

Another type of known apparatus is designed to be applied inside the mouth, between the lips and the gums. Therefore, this apparatus involves a still more restricted band of muscles, for example the facial muscles, and requires only small movements to be made which do not permit gymnastics with progressive effort to be done.

The main object of the present invention is to provide an apparatus for the gymnastics of the face and the neck which enables a plurality of muscles of the face, the breast and the neck to be treated so as to improve the tone and the elasticity of involved muscles, to develop the volume thereof, to make them young and to beautify the face.

Another object of the invention is to provide an apparatus for doing the gymnastics of the face and the neck in a simple way and without damage in a few minutes a day, thereby preventing and opposing the facial muscle relaxation due to the age and promoting the erect carriage of the head.

Another object of the invention is to provide an apparatus for doing the gymnastics of the face and the neck by which the muscles which are not subjected to a spontaneous activity are forced to actively work under stress, thereby assuring the tone and the elasticity thereof.

The apparatus for the active gymnastics of the face and the neck according to the present invention comprises:

- a hollow housing provided with a handle portion,
- a force accumulator arranged inside or outside the housing,
- a rest element for the face or the chin portions according to the muscles to be treated, and
- a support member for supporting the rest element and slidably arranged in the housing and cooperating with the force accumulator.

Control means for controlling the prestress of the force accumulator may be also provided.

The present invention will be now described in more detail in connection with preferred embodiments thereof, given by way of example only and therefore not intended in a limiting sense, illustrated in the accompanying drawings, wherein:

Fig. 1 is an elevational view, partially in longitudinal section, of a first embodiment of the apparatus for the active gymnastics of the face and the neck according to the invention;

Fig. 2 is a view similar to Fig. 1, showing a second embodiment of the apparatus according to the invention;

Fig. 3 is a view similar to Fig. 1, showing a third embodiment of the apparatus according to the invention;

Fig. 4 is a view similar to Fig. 1, showing a fourth embodiment of the apparatus according to the invention;

Figs. 5 and 6 are views similar to Fig. 1, showing a fifth embodiment of the apparatus according to the invention, in Fig. 5 the apparatus being illustrated in an inactive position and in Fig. 6 the apparatus being illustrated in an active position.

Referring now to the drawings and particularly to Fig. 1 there is illustrated an apparatus for the active gymnastics of the face and the neck which comprises a housing 1, having an outer shaped handle portion 2. In the housing 1 a cylindrical chamber 3 is provided, which is open at the lower end as indicated with 5. The upper end of the chamber 3 is provided with a hole 4 having a smaller diameter than the cylindrical chamber 3. The hole 4 slidably receives a rod 6 provided at the lower end with a disc-shaped portion 7 which acts as a guide element for the rod 6 and bears on the upper end of a coil compression spring 8 arranged in the cylindrical chamber 3 of the housing 1. The other end of the coil compression spring 8 is supported by a bottom plug 9 having an externally threaded stem 10 and adapted to be screwed on an internally threaded portion 11 of the cylindrical chamber 3 of the housing 1. At the free end of the rod 6 a rest plate 12 is applied, which is so shaped as to follow the chin contour. The rest plate 12 is connected to the upper end of the rod 6 through a stem 13 to be inserted in a hole provided at the upper end of the rod 6.

As can be seen, the rod 6 supporting the rest plate 12 can slide in the cylindrical chamber 3 of the housing 1, being guided by the disc-shaped portion 7, and in so doing it compresses the coil compression spring 8. Of course, as said spring is compressed the effort for compressing it increases. The control of the spring rate is obtained by screwing or unscrewing the plug 9 on the threaded portion 11 so as to prestress the compression spring 8 until the desired force is attained.

In Fig. 2 a second embodiment is shown, which is different from the first one only in that the coil compression spring 8 is arranged outside rather than inside the housing. In fact, the apparatus comprises a housing 21 having an outer shaped handle portion 22, an upper surface 24 and a lower surface 25. The housing 21 is provided with an axial bore 23 which receives a rod 26 which enters the bore at the upper surface 24 of the housing, passes therethrough and extends from the lower surface 25 of the housing. The lower end of the rod 26 is provided with a threaded portion 30 cooperating with a threaded nut 29, whereas the coil compression spring 28 is arranged between the rest plate 32 and the upper surface 24 of the housing. In this case, the plate 32 is provided with a flat rest surface. The rest plate 32 is applied to the rod through a stem 33 inserted in a hole provided at the upper end of the rod.

As can be seen, the rod 26 together with the rest plate 32 and the coil compression spring 28 placed between the plate and the upper surface 24 of the housing 21 can slide in the axial bore 23 of the housing 21 by compressing the coil compression spring 28. Of course, as this spring is compressed, the effort for compressing it increases. The control of the spring rate is obtained by screwing and unscrewing the nut 29 on the threaded portion 30 of the rod 26 so as to prestress the compression spring until the desired force is attained.

In Fig. 3 there is shown a third embodiment which has also a housing 41 exhibiting a cylindrical shape, the side surface 42 of which acts as a gripping portion. The housing 41 has an inner chamber 43 opened at the lower end and having a threaded hole 44 in the upper wall. The lower end of the chamber 43 terminates with a portion 55 of reduced diameter. This portion is externally threaded as in 54. A cap 53 having an internally threaded skirt 56 intended to threadedly cooperate with the threaded portion 54 of the housing 41 sealingly closes the lower opening of the chamber 43 by means of a gasket 57. The threaded hole 44 is designed to receive an externally threaded bushing 58 in which a rod 46 is slidably arranged, said rod 46 being provided at the lower end with a plunger 45 which can reciprocate in the chamber 43 and

the sealing of which against the side surface of the chamber is assured by a gasket 48. At the upper end of the rod 46 a rest plate 47 is fastened, which has the same shape as that represented in Fig. 2 and therefore provided with the stem 49 for connecting it to the upper end of the rod 46. The chamber 43 is filled with air or inert gas.

As can be seen, the rod 46 together with the rest plate 47 can be caused to enter the chamber 43 of the housing 41 and its plunger 45 compresses the air or gas filling the chamber 43. Of course, as the air or gas is compressed, the effort for lowering the plunger increases. The control of the pressure of the gas filling the chamber 43 is obtained by screwing or unscrewing the bushing 58 in the threaded hole 44 so as to cause the plunger 45 to compress more or less the gas filling the chamber 43.

In Fig. 4 there is shown a fourth embodiment in which the housing with the rest plate forms also the force accumulator. In this case the housing 61 is conformed as an elastic bellows and is provided on the lower side with a handle portion 62. This bellows has side walls 63 which merge at the lower end in the handle portion 62 and at the upper end in the rest plate 64 which, in this case, forms the upper wall of the bellows. The handle portion 62 is provided with a through hole 65 in which a rod 66 is inserted which is fastened to the lower surface of the rest plate 64. At the lower end the rod 66 is provided with a threaded portion 67 on which a nut 68 is screwed.

As can be seen, the rod 66 fastened to the rest plate 64 can slide in the through hole 65 of the handle portion 62 and when a load is applied on the rest plate 64 the bellows-shaped housing 61 is compressed. Due to the resiliency of the material of which the elastic bellows is made, as it is compressed, the effort for compressing it increases. The control of the elastic prestress of bellows is obtained by screwing or unscrewing the nut 68 on the threaded portion 67 until the desired force is attained.

Figs. 5 and 6 show a fifth embodiment of the apparatus for the gymnastics of the face and the neck, which comprises a housing 71 having an outer shaped handle portion 72. In the housing 71 an axial bore 73 is provided. The upper end of the bore 73 is provided with a threaded hole 74 intended to receive a bushing 75 in which is slidably arranged a rod 76 provided at the lower end with a disc-shaped portion 77 which acts as a guide element for the rod 76 and divides the bore 73 in two chambers 84 and 85. In the chamber 84 a coil tension spring 78 is arranged, the lower end of which is hooked in a hole provided in the rod 76 just above the disc-shaped portion 77 and the upper end of which is hooked in the bushing 75. In

the chamber 85 a coil compression spring 86 is arranged. The force of the tension spring 78 is higher than the force of the compression spring 86. The lower end of the compression spring 86 bears on a bottom plug 79 having an externally threaded stem 80 cooperating with an internally threaded portion 81 of the bore 73. At the free end of the rod 76 a rest plate 82 is applied which is so shaped as to follow the chin contour. The rest plate 82 is connected to the upper end of the rod 76 through a stem 83 to be inserted in a hole in the upper end of the rod 76.

As can be seen, the rod 76 supporting the rest plate 72 can slide in the bore 73 of the housing 71 being guided by the disc-shaped portion 77. When a downwardly directed force is applied on the rest plate 82 the rod 76 will put the spring 78 under tension and will compress the spring 86, as illustrated in Fig. 6. The spring 86 in this case acts merely as a control means of the force of the spring 78 together with the threaded plug 80 as in the embodiment of Fig. 1. This force is controlled by screwing or unscrewing the plug 80 in the bore 73 of the housing.

The use of the apparatus is very simple.

When the active gymnastics on the facial or neck muscle, for example the masseter and the annuent muscles and so on is to be done for opposing and preventing the facial or neck muscle relaxation, the flabby cheeks, the flabby mouth angles, the double chin, the neck wrinkles and so on, the rest element shown in Fig. 1 is used and, by holding the apparatus by the hands on the shaped-handle portion of the housing the rest plate is put below the chin. Then, the mouth is slowly opened, as for pronouncing the vocal "O" by lowering the lower jaw. In so doing, the force accumulator is loaded. Then, the mouth is closed by lifting the lower jaw, so that the force accumulator is unloaded. By repeating these movements of the mouth the force accumulator is alternately loaded and unloaded. This alternate movement of the lower jaw is repeated for a time of some minutes a day. With this and other movements combined with the effort of the arms for supporting the apparatus against the jaw action, the lower facial muscles are involved, for example the muscle masseter, the muscle triangularis, as well as other neck muscles, for example the annuent muscle and also the arm muscles, for example the biceps.

Where the gymnastics is to be done by the muscles of the upper portion of the face, for example the levator labii superioris, the pressor angulis oris and the zygomatic muscles for beautifying this region of the face the rest element shown in Figs. 2 to 4 is applied to the apparatus. By holding by the hands the apparatus on the handle portion thereof, the rest plate is applied perpendicularly to said

muscles which are moved so as to alternately load and unload the force accumulator. This gymnastics is made for some minutes a day.

Of course, since the apparatus is provided with means for controlling the prestress of the force accumulator, the intensity of the force required for moving the involved muscle(s) can be adapted to the desired force exerted by the force accumulator.

Although the invention has been described and illustrated only in connection with the four preferred embodiments thereof, it should be understood that it is not so limited, but that further changes and modifications within reach of one skilled in the art can be made without departing from the scope of the invention.

Claims

1. Apparatus for the active gymnastics of face and neck, characterized in that it comprises:
 - a hollow housing (1,21,41,61,71) provided with a handle portion (2,22,42,62,72),
 - a force accumulator (8,28,43,45,63,78) arranged inside or outside the housing,
 - a rest element (12,32,47,64,82) adapted to be applied on the face or chin portions according to the muscles to be treated, and
 - a support member (6,26,46,66,76) of the rest element slidably arranged in the housing and cooperating with the force accumulator.
2. Apparatus according to claim 1, characterized in that means (9,29,58,68,80) for controlling the prestress of the force accumulator are also provided.
3. Apparatus according to claim 1, characterized in that the force accumulator is a coil compression spring (8) arranged inside the hollow housing (1).
4. Apparatus according to claim 1, characterized in that the force accumulator is a coil compression spring (28) arranged outside the hollow housing (21) and surrounding the support member (26) of the rest element (32).
5. Apparatus according to claim 1, characterized in that the force accumulator is a coil tension spring (78).
6. Apparatus according to claim 1, characterized in that the force accumulator is a gas spring (43,45).

7. Apparatus according to claim 1, characterized in that the force accumulator is an elastic bellows (63) forming also the apparatus housing (61) and the rest element (64).
8. Apparatus according to claim 2, characterized in that the means for controlling the pre-stress of the force accumulator are threaded elements cooperating with the hollow housing.
9. Apparatus according to claim 1, characterized in that the rest element (12,82) is formed of a plate shaped following the contour of the face portion to be treated.
10. Apparatus according to claim 1, characterized in that the supporting member of the rest element is a rod (6,26,46,66,76).

Patentansprüche

1. Aktives Gymnastikgerät für Gesicht und Hals, dadurch gekennzeichnet, daß es aus
 - einem mit einem Handgriff (2,22,42,62,72) versehenen Hohlkörper (1,21,41,61,71),
 - einem Kraftspeicher (8,28,43,45,63,78), der außerhalb oder innerhalb des Hohlkörpers angeordnet ist,
 - einer Auflage (12,32,47,64,82), die dazu geeignet ist, auf die Gesichts- oder Kinnpartie entsprechend den zu behandelnden Muskeln angewendet zu werden und
 - einer für die Auflage vorgesehene Stütze (6,26,46,66,76), die in dem Hohlkörper verschiebbar angeordnet ist und mit dem Kraftspeicher zusammenarbeitet,
 besteht.
2. Gerät nach Anspruch 1, dadurch gekennzeichnet, daß Mittel (9,29,-58,68,80) zum Kontrollieren der Vorspannung des Kraftspeichers ebenfalls vorgesehen sind.
3. Gerät nach Anspruch 1, dadurch gekennzeichnet, daß der Kraftspeicher eine innerhalb dem Hohlkörper (1) angeordnete spiralförmige Druckfeder (8) ist.
4. Gerät nach Anspruch 1, dadurch gekennzeichnet, daß der Kraftspeicher eine spiralförmige Druckfeder (28) ist, die außerhalb des Hohlkörpers (21) angeordnet ist und die Stütze (26) der Auflage (32) umschließt.
5. Gerät nach Anspruch 1, dadurch gekennzeichnet, daß der Kraftspeicher eine spiralförmige Zugfeder (78) ist.

6. Gerät nach Anspruch 1, dadurch gekennzeichnet, daß der Kraftspeicher eine Gasfeder (43,45) ist.

7. Gerät nach Anspruch 1, dadurch gekennzeichnet, daß der Kraftspeicher ein elastischer Balg (63) ist, der gleichzeitig die Gerätekülse (61) und die Auflage (64) bildet.

8. Gerät nach Anspruch 2, dadurch gekennzeichnet, daß die Mittel zum Kontrollieren der Vorspannung des Kraftspeichers Gewindeelemente sind, die mit dem Hohlkörper zusammenarbeiten.

9. Gerät nach Anspruch 1, dadurch gekennzeichnet, daß die Auflage (12,82) aus einer den Konturen der zu behandelnden Gesichtspartie entsprechend modellierten Scheibe gebildet ist.

10. Gerät nach Anspruch 1, dadurch gekennzeichnet, daß die Stütze für die Auflage ein Stab (6,26,46,66,76) ist.

Revendications

1. Appareil gymnastique actif pour le visage et le cou, caractérisé en ce qu'il comprend:
 - un corps creux (1,21,41,61,71) muni d'une poignée (2,22,42,62,72),
 - un accumulateur de force (8,28,43,45,63,78) arrangé au dedans ou au dehors du corps,
 - un élément d'appui (12,32,47,64,82) propre à être appliqué sur des parties de visage ou de menton selon les muscles à traiter et
 - un élément de support (6,26,46,66,76) pour l'élément d'appui, arrangé de manière à coulisser dans le corps et coopérant avec l'accumulateur de force.
2. Appareil selon la revendication 1, caractérisé en ce qu'il comporte aussi des moyens (9,29,58,68,80) pour contrôler la prétension de l'accumulateur de force.
3. Appareil selon la revendication 1, caractérisé en ce que l'accumulateur de force est un ressort de compression hélicoïdal (8) arrangé au dedans du corps creux (1).
4. Appareil selon la revendication 1, caractérisé en ce que l'accumulateur de force est un ressort de compression hélicoïdal (28) arrangé au dehors du corps creux (21) et entourant l'élément du support (26) pour l'élément d'appui

(32).

5. Appareil selon la revendication 1, caractérisé en ce que l'accumulateur de force est un ressort de tension hélicoïdal (78). 5
6. Appareil selon la revendication 1, caractérisé en ce que l'accumulateur de force est un ressort à gaz (43,45). 10
7. Appareil selon la revendication 1, caractérisé en ce que l'accumulateur de force est un soufflet élastique (63) formant en même temps le corps d'appareil (61) et l'élément d'appui (64). 15
8. Appareil selon la revendication 2, caractérisé en ce que les moyens pour contrôler la prétension de l'accumulateur de force sont des éléments filetés coopérant avec le corps creux. 20
9. Appareil selon la revendication 1, caractérisé en ce que l'élément d'appui (12,82) est formé d'un plateau façonné selon les contours de la partie du visage à traiter. 25
10. Appareil selon la revendication 1, caractérisé en ce que l'élément de support pour l'élément d'appui est une tige (6,26,46,66,76). 30

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FIG. 1

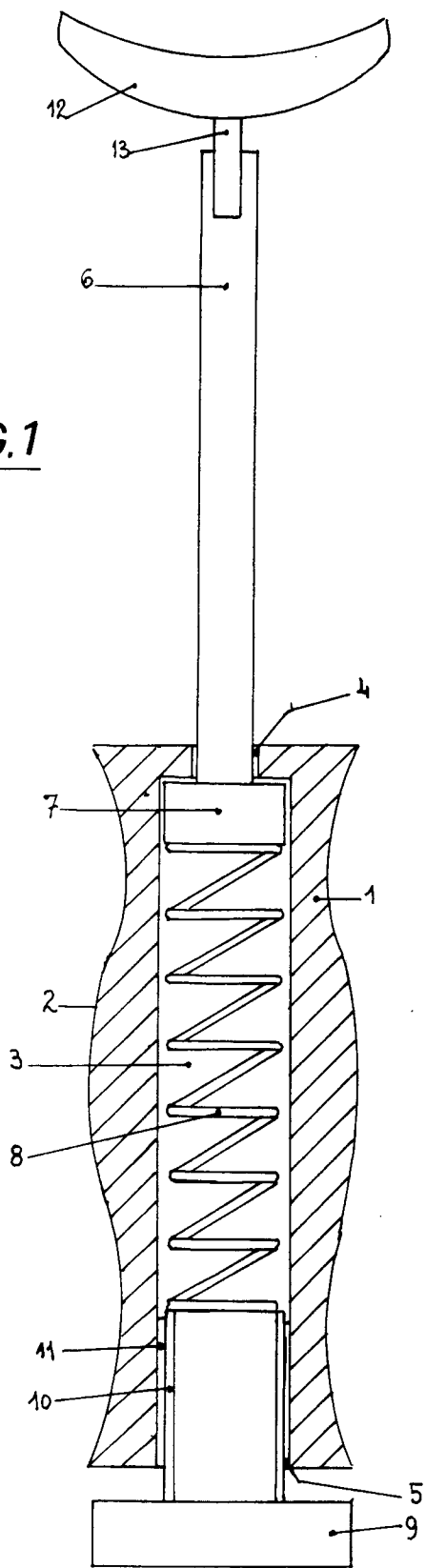


FIG. 2

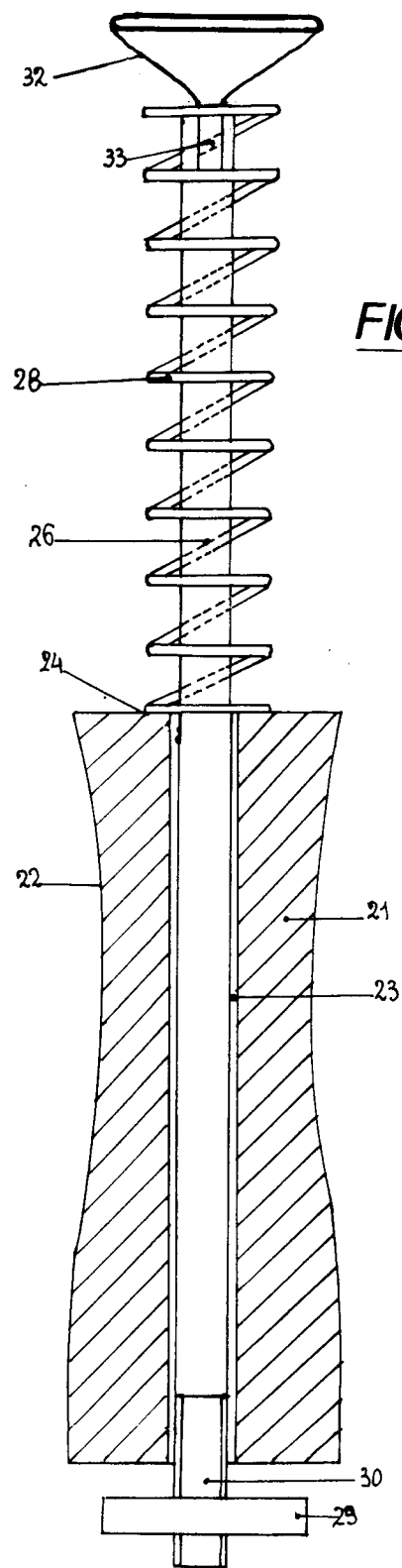


FIG.3

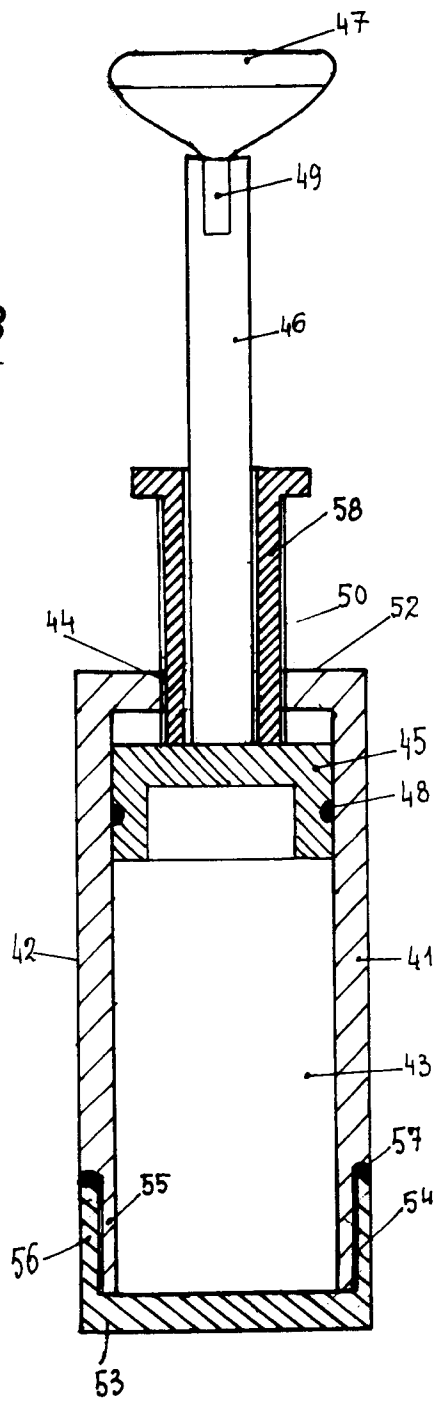


FIG.4

