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FACIAL MUSCLE AND TISSUE CONDITIONING DEVICE

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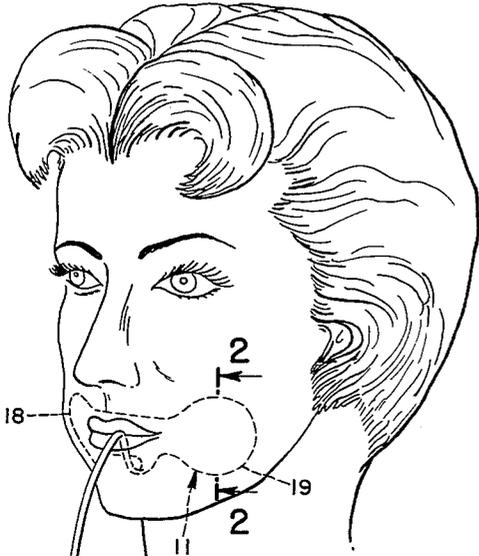


FIG. 1.

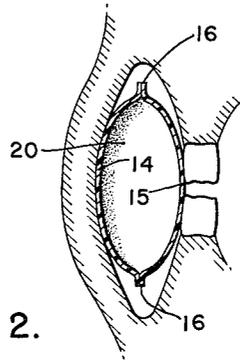


FIG. 2.

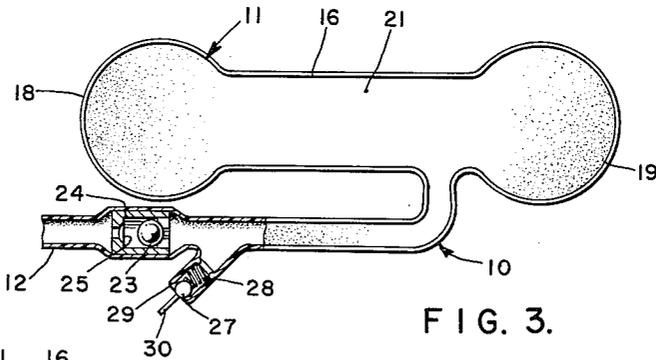
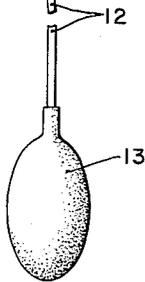


FIG. 3.

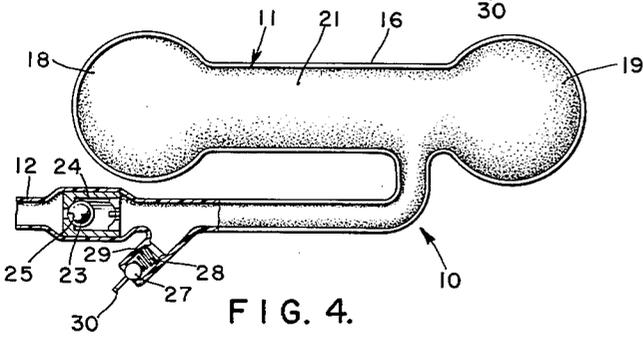


FIG. 4.

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3,091,237
FACIAL MUSCLE AND TISSUE CONDITIONING
DEVICE

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This invention relates to muscle conditioning devices and more particularly to a facial muscle conditioner and blood flow promoting device specially designed for use by the individual to improve and maintain the tone of the facial muscular complex.

It is a well established physiological fact that the tone and healthy condition of muscle complexes require proper exercising, flexing and tensioning. Otherwise such complexes become lax and flabby. One of the major contributing reasons is the lack of sufficient blood seepage through infrequently exercised muscle complexes permitting such tissues to receive insufficient nourishment to maintain their full vigor and strength. It is well known that much of the blood circulation takes place through a network of microscopic capillary passages.

For the most part the blood seepage through this fine network occurs in response to alternate tensioning and relaxation of the muscle fibers crossing these passages. Unused muscle complexes remain untensioned for long periods with the result that there is slight or no blood circulation causing the muscle tissues to remain undernourished.

By the present invention there is provided a simple, inexpensive device comprising a thin-walled flexible envelope designed to be accommodated in the mouth cavity directly in contact with the interior walls of the cheeks. Inflation of this envelope under a suitable pressure forcibly tensions adjacent muscle complexes thereby making it much easier for the subject to massage and manipulate these tissues either with or without the aid of finger manipulation applied on the outer surfaces of the face. In this manner the exercise and beneficial flexing of the facial muscle complex is greatly simplified and facilitated.

Alternatively, the operator can alternately inflate and deflate the envelope to provide controlled exercise of the facial tissues with little or no effort on his part save that required to operate the inflation or deflation control. In consequence, the muscle tone of the facial tissues can be restored in a relatively brief period of time and/or the desired muscle tone level can be maintained over a period of many years by periodic use of the present device for a few minutes daily.

Accordingly, it is a primary object of this invention to provide a new and improved device for exercising and maintaining the tone of the facial muscle complex.

Another object of the invention is the provision of a simple, inexpensive, inflatable envelope adapted to be inserted against the interior surfaces of the cheeks and alternately inflated and deflated to facilitate exercise of the facial tissues.

Another object of the invention is the provision of a method and apparatus usable within the mouth cavity for exercising the facial tissues.

These and other more specific objects will appear upon reading the following specification and claims and upon considering in connection therewith the attached drawing to which they relate.

Referring now to the drawing in which a preferred embodiment of the invention is illustrated:

FIGURE 1 is a perspective view showing a device incorporating the present invention in place in the mouth of a subject;

FIGURE 2 is a cross-sectional view on an enlarged scale taken along line 2-2 on FIGURE 1 and showing the envelope under inflated conditions;

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FIGURE 3 is a plan view of the invention with portions cut away to show details of the check valve in open position to pass inflating air to the envelope; and

FIGURE 4 is a view similar to FIGURE 3 showing the valve in closed position.

Referring now to FIGURES 1 to 4, there is shown a preferred embodiment of the facial muscle conditioning device designated generally 10 and incorporating the features of the present invention. The device comprises a dumbbell-shaped envelope 11 formed from thin-walled flexible, impervious material the interior of which communicates through a tube 12 with a suitable inflating device as air pump 13.

As here shown, envelope 11 is formed from two sheets 14 and 15 of thin sheet plastic, as polyethylene, heat-sealed together along their juxtaposed perimeters 16. In a preferred form of the envelope the opposite ends 18 and 19 are of generally circular contour to form disc-like inflatable chambers 20. These two chambers 20 are interconnected by the flat tubular connection 21 adapted to be disposed in use against the interior of the patient's lips, this tube being connected to air pump 13 by the aforementioned flexible tube 12.

Air pump 13 may be of any suitable form capable of supplying air under slight pressure to inflate conditioning device 10. As here shown, the pump comprises a well known resilient squeeze bulb 13 provided with any suitably shaped valve (not shown) in its closed end which opens to admit air but closes to prevent backflow of the air when the bulb is squeezed. Accordingly, by squeezing bulb 13 the air trapped therein is forced through tube 12 to inflate the conditioning device.

The escape of air delivered to device 10 is prevented by any suitable valve control mechanism located in tube 12. One suitable form of check valve is shown in FIGURE 3 as comprising a ball valve 23 mounted for limited movement within a valve housing 24 having a valve seat 25. In the FIGURE 3 position of the parts, bulb 13 is being squeezed to supply air to the device to inflate it and valve 23 is then held in open position by the air flow. As soon as pressure on the bulb is released, the pressure of the air in the envelope will close valve 23 against seat 25.

Any suitable means may be provided for releasing the air from the conditioning device to deflate it such as the release valve 27 normally held seated by a light spring 28 against the outer end of release tube 29. This tube opens into the side of tube 12 upstream from check valve 23. A small extension 30 or other suitable means operatively associated with valve 27 can be manipulated by the operator to press the valve toward open position to release the inflating air from device 10.

The mode of using the facial muscle conditioner will be readily understood from the foregoing description of the device itself and the showing made in FIGURES 1 and 2. The subject first installs the device within that portion of the mouth cavity on the exterior side of the teeth with one wall of device 10 positioned against the interior side walls of the two cheek areas with tube 12 extending outwardly between the lips. The subject then closes the mouth and squeezes bulb 13 one or more times as necessary to inflate the envelope to bulge the cheeks outwardly and to place the tissues under slight tension. Valves 23 and 27 remain closed automatically after inflation and the subject may manipulate the facial muscles without contact by the fingers. Or, if desired, finger pressure may be applied to the outside of the face to aid the muscles in efforts to relax and tension them alternately in opposition to the pressure applied by the inflated envelope. This action greatly facilitates the seepage of nutrient blood through both the facial tissues and the adjacent tissues of the alveolar ridges in a most beneficial manner with minimum exertion by the subject.

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According to the alternate mode of using the device, the envelope is placed and inflated in the manner just described and after a brief interval the air is permitted to escape by finger pressure applied to operator 30 for the release valve 27. According to this mode of use, repeated inflation and deflation of the device is utilized to provide the desired and beneficial exercising of the tissues.

While the particular facial muscle and tissue conditioning device herein shown and disclosed in detail is fully capable of attaining the objects and providing the advantages hereinbefore stated, it is to be understood that it is merely illustrative of the presently preferred embodiments of the invention and that no limitations are intended to the details of construction or design herein shown other than as defined in the appended claims.

I claim:

1. A facial muscle conditioning device comprising a pair of identical blanks of supple film-thin sheet plastic material having smooth-surfaced faces, said blanks each having generally circular enlargements at their opposite ends interconnected by a relatively narrow strip having generally parallel opposite lateral edges, a long narrow strip extending from one lateral edge of said narrow strip and integral therewith, all edges of said two blanks being in direct registry with one another and being bonded together throughout their peripheral rim edges except transversely of said last mentioned long narrow strips, thereby to provide an inflatable envelope and an attached small diameter long flexible air inlet tube extending lat-

erally from one bonded edge thereof, said envelope being of a size to be received in the oral cavity between the exterior of the closed teeth and the juxtaposed surfaces of the facial muscle complex with said air inlet tube extending outwardly between the lips, said envelope being alternately inflatable and deflatable with slightly pressurized air to alternately tension and relax the facial muscles to exercise the facial muscles while providing a flow of nutrient blood therethrough.

2. A facial muscle conditioning device as defined in claim 1 characterized in the provision of a hand operated squeeze bulb on the outer end of said flexible air inlet tube together with check valve means for holding a charge of inflating air in said envelope, and hand operated check valve means for releasing said charge of air to permit deflation of said envelope, and being further characterized in that both of said valve means are located exteriorly of the mouth so as to be readily accessible to the user's hands.

References Cited in the file of this patent

UNITED STATES PATENTS

901,376	Roberts	Oct. 20, 1908
2,685,287	Golfier et al.	Aug. 3, 1954

FOREIGN PATENTS

1,126,012	France	July 23, 1956
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