

No. 819,459.

PATENTED MAY 1, 1906.

C. H. RICHWOOD.
APPLICATOR FOR MECHANICAL MASSAGE.
APPLICATION FILED SEPT. 29, 1905.

Fig. 1.

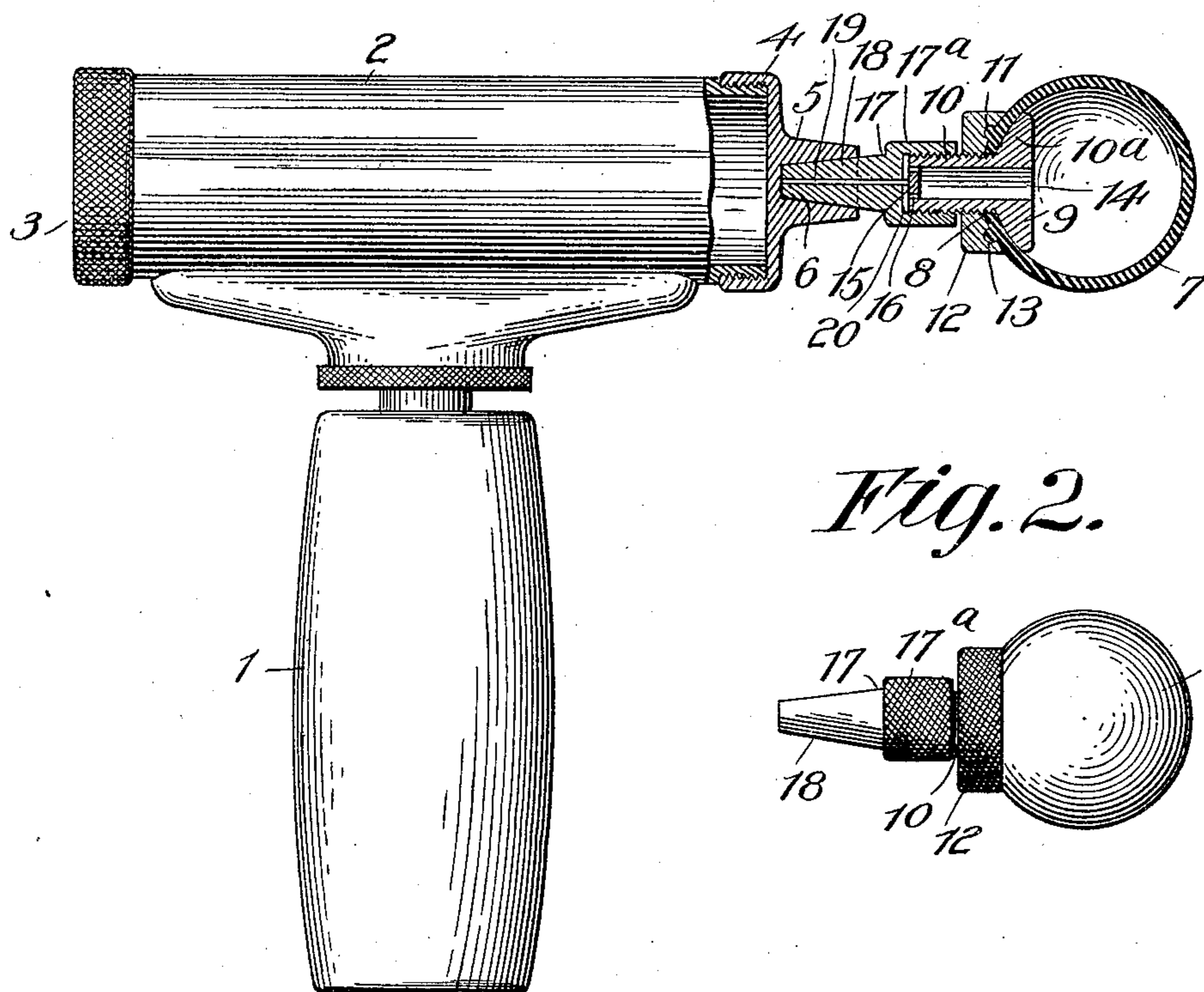


Fig. 2.

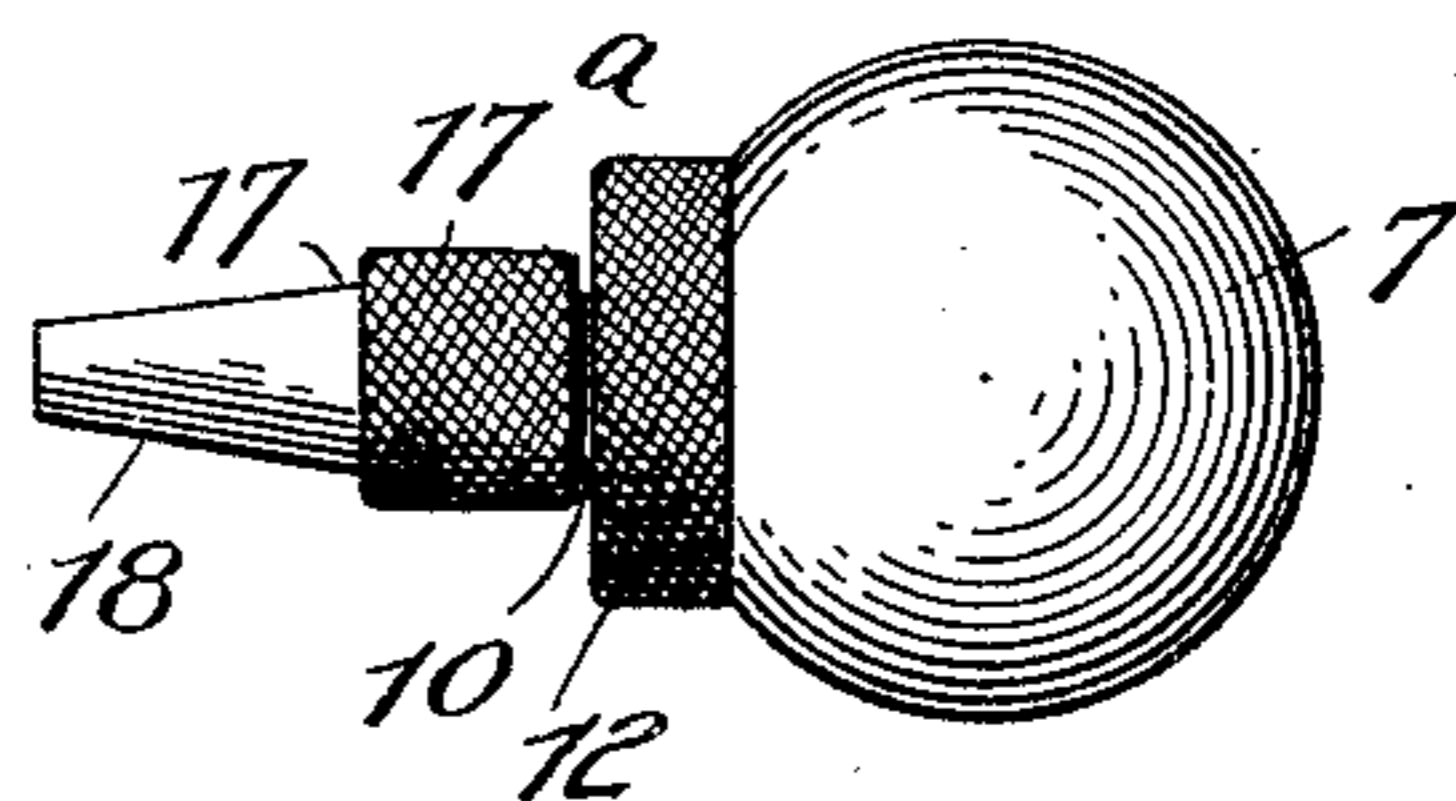


Fig. 3.

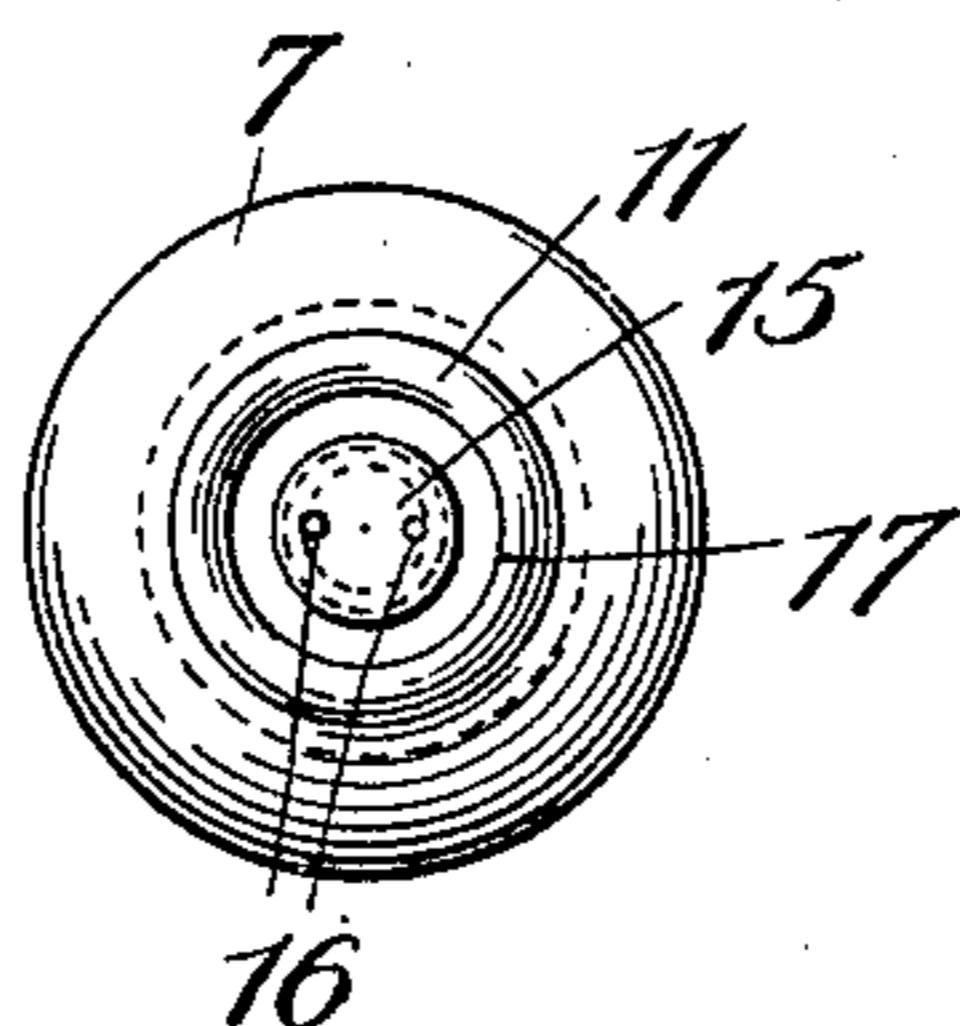


Fig. 4.

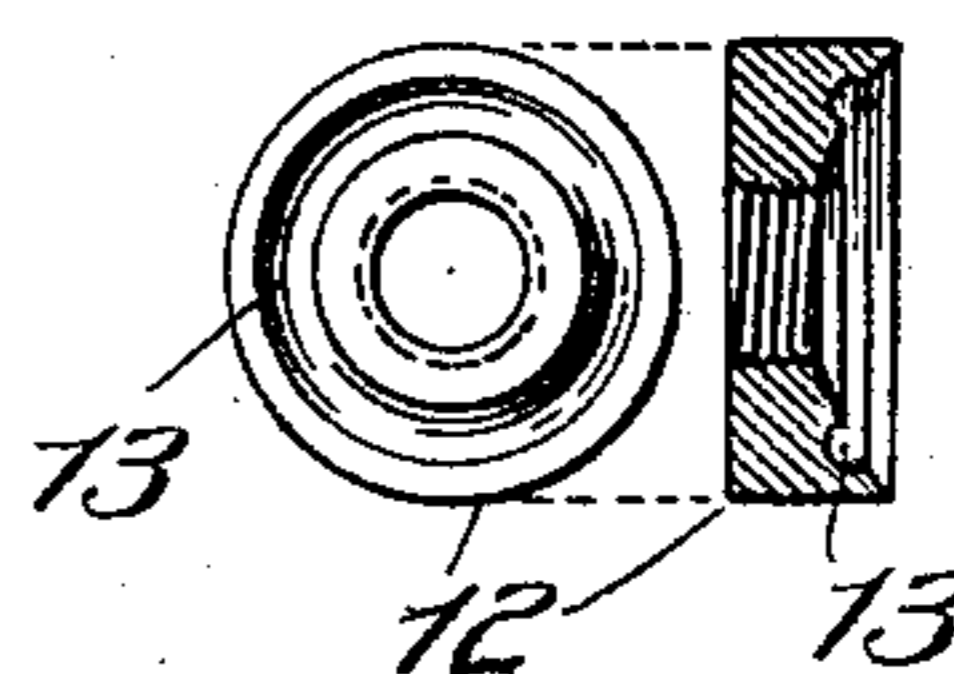
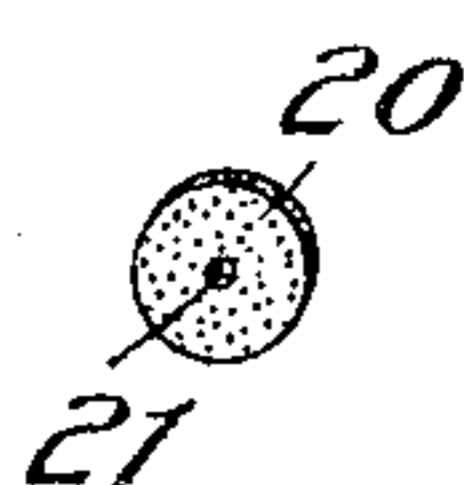


Fig. 5.



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UNITED STATES PATENT OFFICE.

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APPLICATOR FOR MECHANICAL MASSAGE.

No. 819,459.

Specification of Letters Patent.

Patented May 1, 1906.

Application filed September 29, 1905. Serial No. 280,681.

To all whom it may concern:

Be it known that I, CLARENCE H. RICHWOOD, a citizen of the United States of America, and a resident of Boston, in the county of Suffolk and State of Massachusetts, have invented certain new and useful Improvements in Applicators for Mechanical Massage, of which the following is a full, clear, and exact description.

My invention has relation to devices for mechanical massage, and more particularly improvements in applicators forming a part of or used in connection with such implements, the term "applicators" being used to designate that part, element, or portion of the device which is brought into direct contact with the parts being treated during the massaging operation.

One of the objects of the invention is to provide an applicator which will have a soft and yielding action when brought into contact with the parts being treated.

A further object is to provide an applicator consisting of an inflatable body and having improved means for permitting the inflation thereof and preventing the egress of air therefrom.

The invention consists in an inflatable head or body constituting an applicator associated with a vibratory massage implement.

The invention further resides in an inflatable elastic spherical applicator operatively adapted to be connected with a vibratory massage implement, but which is also adapted for use in connection with or as a part of a massage implement operated by a swinging blow.

The invention is fully and clearly illustrated in the annexed drawings, to be taken as a part of this specification, and wherein—

Figure 1 is a side view, partly in central longitudinal vertical section, indicating the members or parts of the applicator in operative assemblage and connected to a pneumatic massage implement. Fig. 2 is a detail perspective view of my improved applicator detached from the pneumatic implement. Fig. 3 is an end view of the inflatable head or bulb and the headed stem engaged therewith. Fig. 4 illustrates front and sectional views of the clamping-nut. Fig. 5 is a detail view of a compressible disk adapted to seat in the threaded socket of the coupling-stem of the applicator.

It will be seen that in illustrating the invention I have shown the same as employed

in connection with a vibrator which may be of any construction, the exterior parts and general conformation of which are all that it is deemed necessary to demonstrate for the purpose of this application, it being understood that the invention is readily applicable for use in connection with all forms of vibratory massage implements. It is also readily perceived that the parts constituting the means for connecting the applicator to the implement and for sustaining the applicator in relative position thereto may be changed without affecting the salient features of the invention, the essential element of which is an inflatable head held in connection with a massaging implement and the means for controlling the ingress and egress of the air to and from the head.

Referring to the drawings, 1 designates the handle of a pneumatic massaging implement, and 2 designates the cylinder thereof, the parts being connected by any desired means. The cylinder is provided at one end with a cap or head 3 and at the other end with a cap 4, having a projection 5, formed with a flared socket 6 to receive the tapering part of the coupling-stem of the applicator, substantially as shown in Fig. 1 of the drawings. The implement described has the general structural features of the one shown in my earlier application for Letters Patent, Serial No. 224,391, filed September 19, 1904.

7 designates the applicator-body, consisting of a head or bulb made of some suitable flexible material, such as rubber, and preferably of spherical shape or contour, and capable of distention or inflation, so that when an elastic fluid, such as air, strongly invades the interior of the bulb it will expand and become an elastic body and impart an agreeable, desirable, and efficacious impact under the influence of the implement to the surface of the part being treated. In the shell of the applicator or bulb is formed an aperture 8, wherein is placed a plug 9, having a screw-threaded shank or stem 10 and a head 10^a, the face of which adjacent to the inner surface of the bulb is curved to fit said inner surface, as indicated in Fig. 1 of the drawings. On the outer face of the applicator-bulb, adjacent to the orifice therein, is formed an annular rib or ridge 11 to serve a purpose to be presently set forth. On the shank of the plug 9 is fitted a clamping-nut 12, made with a concave inner face, as shown, to fit against the outer face of the applicator, and also has

a circular groove 13 to receive the annular rib thereon. In the plug 9 is a central bore 14, which is closed at the end of the shank by an end wall 15, having air-apertures 16, through which air may be forced into the applicator-bulb. It will be observed that by means of the plug 9 and the clamping-nut 12 the applicator can be clamped in position and so held. It will also be seen that the engagement of the groove 13 with the rib 11 prevents the edges of the groove adjacent the opening 8 from being pulled from between the clamping members and also effectually seals the joint against the escape of air from the bulb.

17 designates a coupling nut and stem which serve the purposes of opening and closing the air-passages to the applicator-bulb and as a support for connecting or detachably coupling the same to the massage implement. To accomplish these purposes, this nut 17 is formed with a head 17^a, having a screw-threaded socket therein to take on the threaded shank of the plug 9, and has a tapering stem 18 to engage in the socket 6 in the head of the massaging implement, said stem having a central longitudinal air-channel 19, as shown in Fig. 1 of the drawings. In the base of the threaded socket of the coupling-nut 17 is arranged a suitable packing-disk 20, having a central air-aperture 21 registering with the air-passage 19 and opening centrally against the solid part of the end wall of the plug 9, so that when the coupling-piece is screwed up so as to bring the disk 20 and the end wall 16 into tight contact the escape of air from the applicator-bulb is effectually prevented.

To inflate the spherical hollow applicator-bulb, the stem 17 is unscrewed a little way on the shank of the plug 9, carrying the packing 20 away from the end wall of the plug, and thus providing an air-space through which the influent air finds course to the apertures 16, thence into the interior of the applicator-bulb to distend or inflate the same. Any suitable air-pump connected to the tapering stem 18 may be the means of inflation. When the proper condition of rigidity of the applicator-bulb is accomplished, the coupling-piece is screwed up tight to bring the disk 20 and the end wall of the plug 9 into close engagement and close the apertures 16. The applicator is then disconnected from the pump and placed in position in operative connection with the massaging implement upon which it is employed.

It will be seen that the arrangement of the stem 10 and the coupling-nut 17 and the manner in which the channel 19 in said nut coacts with the apertured end wall 15 in said stem a means is provided operable by a relative movement of the valve and stem to control the passage of air to and from the applicator-bulb.

The application of my invention is apparent. When the applicator is in position on the vibrator, as shown in Fig. 1, the power may be applied to the implement, and the operator manipulates the whole device as skill requires.

Having thus described my invention, what I claim is—

1. An applicator for a massage implement comprising an inflatable body having an opening therein, a hollow stem arranged in said opening and having a head located within the body, a clamping device on the stem to clamp the body to said head, a coupling device movably engaging the stem and means operable by a relative movement of the device and stem for controlling access of inflating fluid to the body.

2. An applicator for a massage implement comprising an inflatable body having an opening therein, an exteriorly-threaded hollow stem arranged in said opening and having a head located within the body, a clamping device threaded on said stem to clamp the shell of the body to said head and a coupling device movably engaging the stem and means operable by a relative movement of the coupling device and stem for controlling access of inflating fluid to the body.

3. An applicator for a massage implement comprising an inflatable body having an opening therein and an annular rib surrounding said opening, a stem arranged in said opening and provided with a head located within the body, a clamping device on the stem and having a groove to receive the rib on the body, said device serving to clamp the shell of the body to the said head, and means for controlling the access of inflating fluid to the body.

4. An applicator for a massage implement comprising an inflatable body, an air-tube clamped therein and communicating therewith, means associated with the air-tube to open and close the communication with the inflatable body, means for coupling the air-tube to a massage implement, said means having an air-channel communicating with the air-tube.

5. An applicator for a massage implement comprising an inflatable body, an air-tube clamped therein and communicating therewith, a coupling device engaging the air-tube and having an air-channel communicating therewith and means located between the said tube and device for controlling the passage of air from one to the other.

6. An applicator for a massage implement comprising an inflatable body, an air-tube clamped therein and communicating therewith, a coupling device movably engaging the air-tube and having an air-channel communicating therewith and means located between the said tube and device for controlling the passage of air from one to the other,

said means being operated by the relative movement of said tube and stem.

7. An applicator for a massage implement, comprising an inflatable body, an air-tube secured therein and having communication therewith, said tube being provided at its outer end with a wall having an air-passage opening into the bore of said tube, means to secure the body to the tube, a coupling device having a socket to receive the outer end of said tube and a central air-passage open-

ing into the socket, and a disk having a central aperture, interposed between the end wall of the air-tube and the base of the socket.

Signed by me at Springfield, Massachusetts, in presence of two subscribing witnesses.

CLARENCE H. RICHWOOD.

Witnesses:

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G. R. DRISCOLL.