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3,416,160

RETROMAMMARY PROSTHESIS

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Fig. 1.

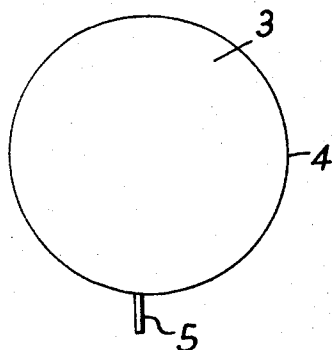


Fig. 2.

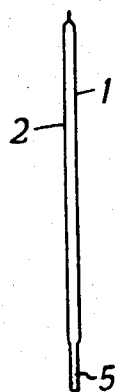


Fig. 3.

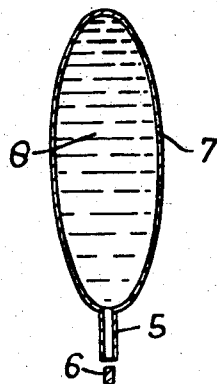


Fig. 4.

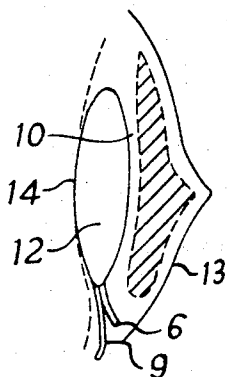
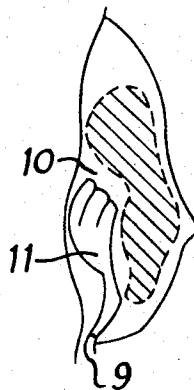


Fig. 5.



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RETROMAMMARY PROSTHESIS
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1 Claim. (Cl. 3—36)

ABSTRACT OF THE DISCLOSURE

A retromammary prosthesis comprises two circular elements of thin osmotically permeable flexible film of a silicone elastomer resistant to tissue invasion and joined in fluid-tight manner at their peripheries to define a chamber capable of being crumpled so as to pass through a very small incision, less than two centimeters in length, a flexible tubular neck joined to said chamber and opening therein for the introduction and extraction of a filling medium into the chamber after insertion of the chamber into the incision, and means such as a plug for sealing the tubular neck.

Experience has shown that retromammary prostheses intended to remedy mammary hypertrophy have consisted of profiled structures of a rigid synthetic material to be introduced between the muscle and the mammary glands and positioning the entire breast stretched externally on this support. This involved a very large incision and frequently resulted in discomfort arising either from the substance itself or from the periprosthetic liquid reactions.

Finally, fibrous reactions were inevitable.

The purpose of the invention is to replace rigid prostheses by flexible prostheses adaptable to the volumes desired and, above all, placed in position with the aid of an extremely small incision.

It is characterized by the means employed, considered both in conjunction with and separately from one another, and more particularly by the application of a ball formed by the combination of two very thin circular surfaces of film-like material and fitted with an inflation tube which is provided with a suitable sealing device, this container being accommodated, empty and in a crumpled state, in the actual incision and being inflated by the isotonic liquid; this peroperative prosthesis, inflatable in situ, is interchangeable, remains flexible indefinitely, occupies the retromammary space and imparts the appropriate physiological shape to the breast by holding it in position mechanically.

In the attached drawings, provided by way of an example, without any limitative effect, of one of the forms in which the invention can be constructed:

FIG. 1 is a view of the hollow spherical structure in elevation;

FIG. 2 is a cross section of the elements by which this ball is formed;

FIG. 3 is a side view in elevation of the partially filled prosthesis structure; and

FIGS. 4 and 5 are longitudinal sectional diagrams showing how the device is applied.

The ball in FIGS. 1 and 2 is formed by the combination of pellicular walls 1 and 2, in the form of discs 3.

These very thin sides or sheets, preferably made of a silicon elastomer, are sealed or stuck together by their peripheries, as shown at 4, and comprise an inflation conduit or stem 5.

This tube is sealed up, after the filling operation, by a stainless steel plug 6, with or without a safety ligature, which is not tightened.

The container 7 is then filled with an introprosthetic

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liquid 8, which may consist of water, of physiological serum or any other suitable agent.

The advantages and applications of this device will thus be evident.

5 The surgeon makes an incision, not exceeding two centimetres, at point 9, on the extension of a generatrix of the mammary cone or at the external end of the submammary groove.

10 The retromammary space 10 is detached over an area slightly exceeding the base by which the mammary cone is attached to the thorax. The prosthesis 11 is introduced in a crumpled state, and its filling 12 is produced by means of a perfusion of serum. The steel plug 6 is placed in position, and the filling tube 5 is introduced into the deep surface of the prosthesis.

15 This prosthesis, even when subjected to numerous movements, remains in a completely correct position mechanically, and if the sides of the ball happen to break the liquid will be entirely absorbed in situ, without any reaction.

20 The very position of the ball ensures that it has no effect on the general pathology of the mammary gland 13. The prosthesis rests on the muscular wall 14 and can remain crumpled and compressed or extended without any deleterious consequences (FIGS. 4, 5).

25 Furthermore, like all plastic substances, the elastomer used is permeable to gases and to small molecules. With equal osmotic pressure inside and outside the prosthesis, no variation in weight or volume takes place over a period of time.

30 These prostheses remain flexible for an indefinite period, the incision required is very small, there is no undesirable adhesion, the devices thus being easily removable and replaceable, and the intra-prosthetic liquid is absolutely innocuous, so that the system offers the greatest possible number of advantages.

35 The shapes, dimensions and arrangements adopted for the various elements of the system may nevertheless vary, within the limits allowed by equivalent devices, as may also the materials used for their manufacture, without thereby departing from the general principle of the invention described in the foregoing.

I claim:

45 1. A retromammary prosthesis comprising two identical circular disc elements of thin flexible osmotically permeable film of a silicone elastomer, resistant to tissue invasion, joined in fluid tight manner at their peripheries to define an oblate chamber capable of being crumpled so as to pass through a very small incision, less than two centimeters in length, a flexible tubular neck joined to said chamber and opening therein for the introduction and extraction of a filling medium into the chamber after insertion of the chamber into the incision, and means for sealing the tubular neck.

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