

Dec. 25, 1951

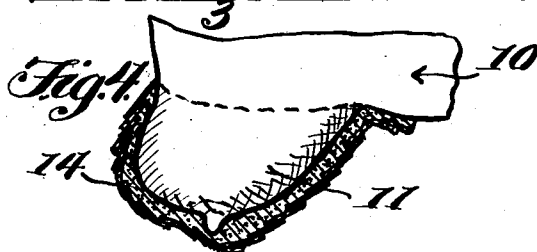
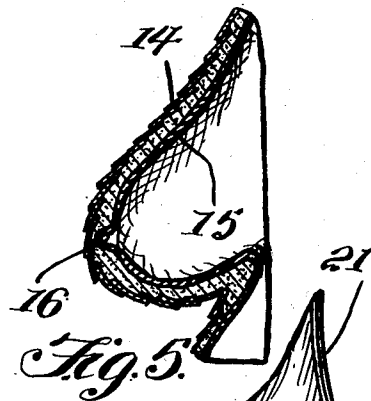
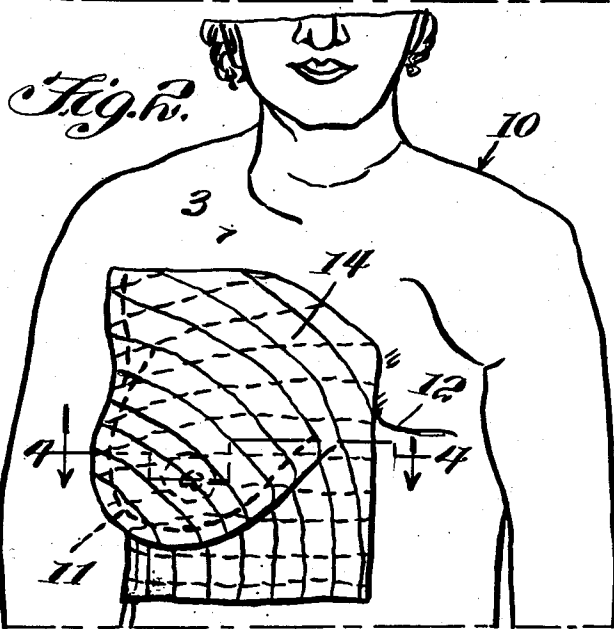
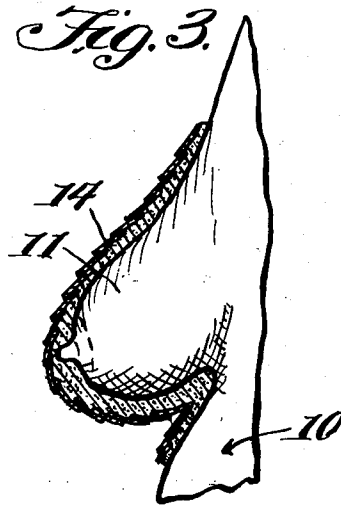
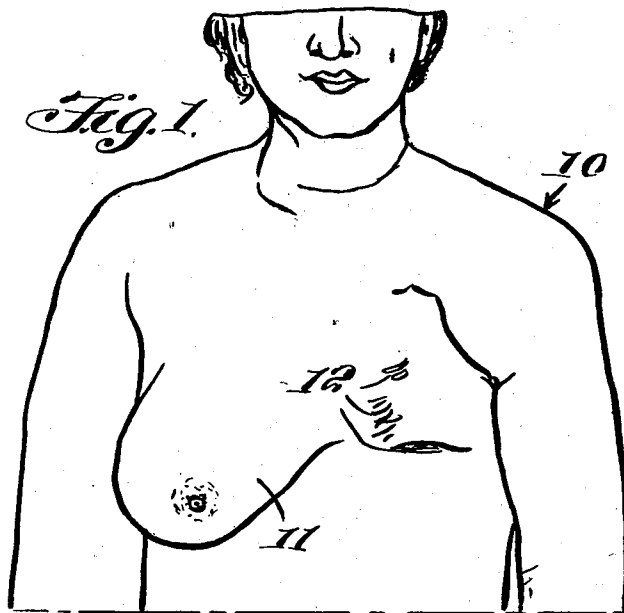
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2,580,264

METHOD OF FORMING ARTIFICIAL BREASTS

Filed Nov. 23, 1949

2 SHEETS—SHEET 1



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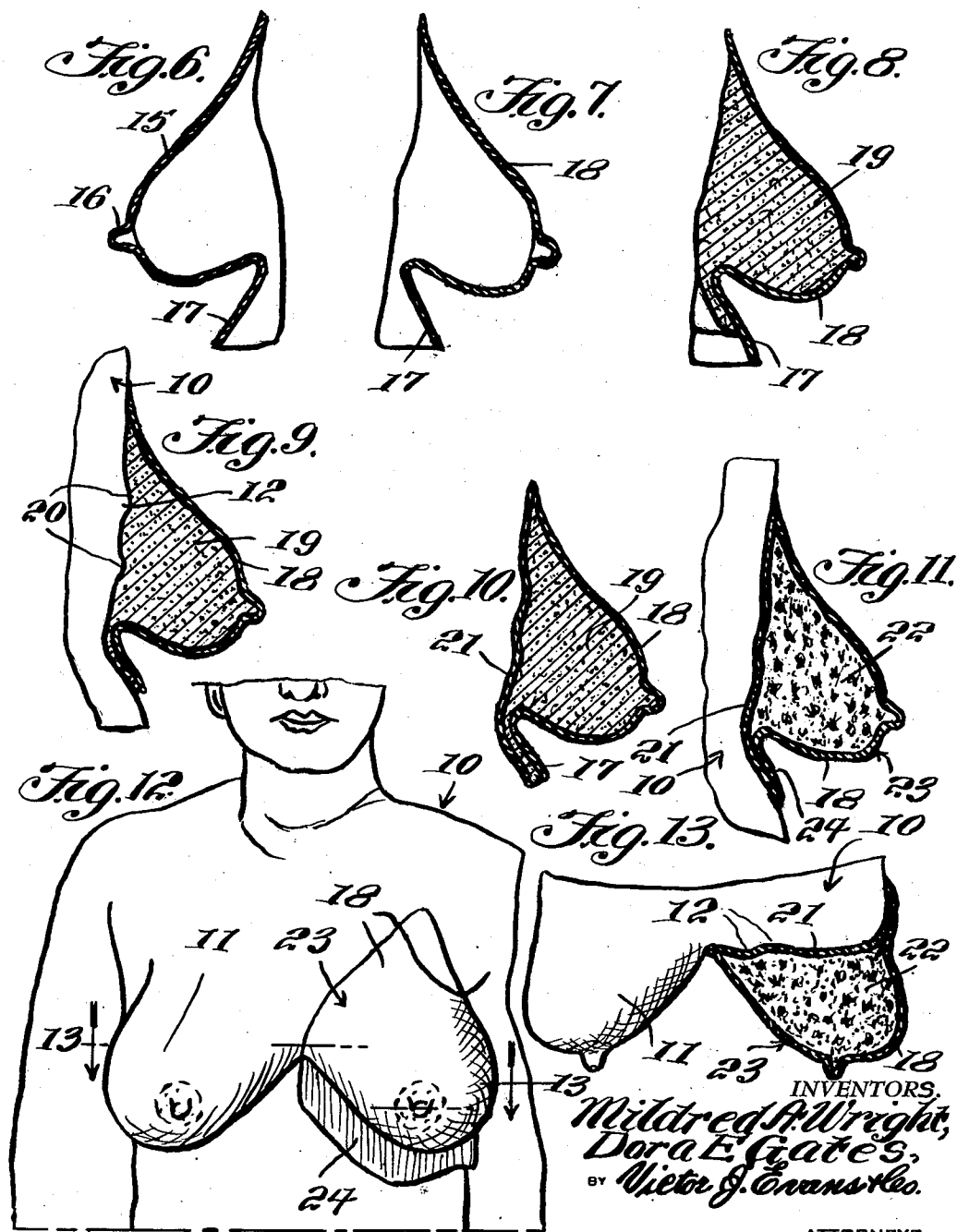
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2 SHEETS—SHEET 2



UNITED STATES PATENT OFFICE

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METHOD OF FORMING ARTIFICIAL BREASTS

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4 Claims. (Cl. 3—1)

1 This invention relates to a method of and means for applying or adding an artificial breast to a woman.

The object of the invention is to provide a method of and means for adding an artificial breast to the body of a woman in order to take the place of a breast that has been removed, as by surgery.

Another object of the invention is to provide a method of and means for designing an artificial breast so that it will have the exact shape and contour as the natural breast, the artificial breast being constructed of light-weight material and adapted to be readily cleaned with soap and water, and wherein the artificial breast formed by the method of the present invention will give the wearer the same breast appearance as she possessed before one of the breasts was removed.

Still another object of the invention is to provide a method of and means for forming an artificial breast whereby the completed artificial breast can be comfortably worn for an indefinite length of time without irritating the woman's or girl's skin, and wherein the artificial breast will not deteriorate during use.

Other objects and advantages of the invention will be apparent during the course of the following description.

In the accompanying drawings forming a part of this application, and in which like numerals have been used to designate like parts throughout the same:

Figure 1 is a front elevational view showing a woman with one of her breasts removed, as from a mastectomy;

Figure 2 is a front elevational view showing a plaster-of-Paris bandage applied to the woman's breast;

Figure 3 is a sectional view taken on the line 3—3 of Figure 2;

Figure 4 is a sectional view taken on the line 4—4 of Figure 2;

Figure 5 is a vertical sectional view taken through the hardened cast or mold and with a liquid rubber coating or casing applied to the inner surface of the cast;

Figure 6 is a vertical sectional view taken through the rubber lining or casing which has been removed from the cast;

Figure 7 is a view similar to Figure 6, but with the rubber casing turned inside out for use in forming the artificial left breast;

Figure 8 is a vertical sectional view showing the casing of Figure 7 filled with a solid moldable material;

Figure 9 is a vertical sectional view showing the model of Figure 8 cut out so as to conform in shape to scars and the like on the woman's body;

Figure 10 is a vertical sectional view showing the next step, wherein a liquid rubber back member is applied to the rear surface of the cut-away model;

Figure 11 is a vertical sectional view taken through the finished artificial breast;

Figure 12 is a front elevational view showing the artificial breast constructed according to the present invention in position on the woman's body;

Figure 13 is a sectional view taken on the line 13—13 of Figure 12;

Figure 14 is a side elevational view of the completed artificial breast.

Referring in detail to the drawings, there is shown a method of and means for forming an artificial breast which is adapted to be used to replace a breast that has been removed, as by surgery. Thus, referring to Figure 1, there is shown a portion of a woman's body 10 which includes a normal or natural right breast 11, the other or left breast having been previously removed, the scars 12 being an indication of the position that the left breast formerly occupied.

By means of the present invention, an artificial breast is provided whereby a woman's body will have a natural appearance so that the woman can live a normal life without feeling self-conscious as a result of the loss of the breast. To form the artificial breast, the first step is to form or make a mold or cast 14 from a suitable material, such as plaster of Paris.

The mold 14 is of the same configuration or shape as the normal or natural right breast 11, and is made by applying a plaster of Paris bandage over the right breast 11 so that after the plaster of Paris bandage hardens, the mold 14 has the same inner shape as the exterior of the right breast 11, Figure 3.

The next step in forming the artificial breast is to remove the hardened cast or mold 14 from the natural breast 11 and then a coating of quick-drying liquid latex rubber is painted on the inside of the hardened mold 14, as shown in Figure 5, and the coating of rubber assumes the same shape as the interior of the mold 14 which is the same shape as the exterior of the natural right breast 11.

After the rubber coating has dried, there is provided a flexible casing or lining 15, and this casing 15 is removed from the interior of the mold

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14, the casing 15 being shown in vertical section in Figure 6. The casing 15 includes the projecting tip 16 which is the same shape as the nipple on the natural right breast 11, and the remaining portion of the casing 15 is also of the same shape and appearance as the breast 11. The casing 15 also is provided with a depending flange portion 17 for a purpose to be later described.

The next step in forming the artificial breast is to turn the casing 15 inside out, or in other words, the casing 15 is reversed so that it assumes the shape shown in Figure 7, and the flexible casing is now designated by the reference character 18. It will be seen that by reversing or turning the casing 15 inside out so as to provide the casing 18, the casing 18 will now have a configuration that corresponds exactly to the shape of the left breast that was removed from the woman's body, as by surgery.

Next, the casing 18 is filled with a moldable material, so that a solid plaster model 19 is provided, as shown in Figure 8, the model 19 having the same configuration as the casing 18. The casing 18 is flexible, but the casing 18 also has sufficient rigidity so that it can be used to mold the plaster model 19.

The next step in the formation of the artificial breast is to remove the plaster model 19 from the casing 18 and then the rear surface of the model 19 is cut away, as at 20, so as to compensate for any of the scars 12 that are on the woman's body. In other words, the rear surface of the model 19 is sculptured so that it conforms exactly in shape to the portion of the woman's body that the left breast was removed from, Figure 9. Then, a coating of liquid latex rubber is applied to the cut-away rear surface of the model 19 and the coating forms a back member 21 which has the same configuration as the scarred portion of the woman's body, Figure 10.

After the back member 21 has dried, the model 19 is removed from the casing 18 and the casing 18 is filled with a suitable flexible material, such as ground sponge rubber 22, Figure 11. Then, the back member 21 is secured to the casing 18 by cement or glue, so that the sponge rubber 22 will be prevented from accidentally coming out of the casing 18. Finally, the coating of cement or glue is applied to the back member 21 and the completed artificial breast, indicated generally by the numeral 23, is attached to the woman's body 10, so that the woman's body appears natural.

From the foregoing, it is apparent that a method of and means for forming an artificial breast has been provided. By means of the present invention, an artificial breast, such as the breast 23, can be formed which will have the exact shape or configuration as the left breast that was removed, as by surgery, from the woman's body.

The method of the present invention is similar to the method employed by orthopedic and dental surgeons when a patient is fitted for a prosthesis. In other words, an impression is first taken of the natural remaining breast 11 by means of the plaster of Paris bandage, so that the mold 14 is formed, whereby a perfect impression of the part to be substituted is obtained. Instead of applying the plaster of Paris around the remaining breast 11, the plaster of Paris could also be applied over the breast to be amputated. The moist plaster of Paris assumes the shape or contour of the chest and then the quick-drying latex rubber is applied or painted on the inside of the hardened mold 14, so as to obtain the casing 15 which, when turned inside out, forms the casing

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18 that has the same contour as the breast that was amputated. The casing 18 is used to shape or form the plaster model 19 and after the plaster model 19 has had its rear surface sculptured so as to conform in shape to the scars or irregular formations on the woman's body, the model 19 is removed from the casing 18, and the casing is filled with ground sponge rubber 22. Then, the casing 18 and back member 21 are connected together, as by cement, and the artificial breast is cemented or otherwise secured to the woman's body, as shown in Figures 12 and 13. The method of the present invention can be used in forming either the right or left breast replacement. The ground sponge rubber 22 provides the necessary weight and feeling of gland tissue, and the drooping artificial breast molds itself to any brassiere cup in the same manner that the natural breast molds itself.

The artificial breast of the present invention can be worn for an indefinite period of time without causing any discomfort to the user, and further, there will be no skin irritation, nor will there be any deterioration of the material either from wear or from the salt of perspiration. The artificial breast may be worn in swimming under a strapless brassiere without any absorption of water, and the artificial breast may be readily cleaned with a mild soap and water, so as to insure proper personal cleanliness. Further, the artificial breast of the present invention will not be pulled out of position when the arm is raised or with any movement of the body, and the artificial breast is individually designed to fit the scar tissues and may be worn in any type of brassiere, since it molds itself to the cup thereof.

The artificial breast of the present invention has perfect contour, insures definite nipple alignment, is of proper weight and the artificial breast can be easily cleaned. It will be noted that during the previously-described steps of forming the artificial breast 23, a flange 24 is provided and the flange 24 helps to maintain the artificial breast in its proper position.

What is claimed is:

1. The method of making an artificial breast to be used to replace a breast that has been removed from a woman's body, comprising the steps of forming a mold that has the same configuration as the remaining natural breast on the woman's body, then forming from said mold a flexible casing having the same configuration as the mold, next turning said casing inside out so as to provide a casing having the same shape as the breast to be replaced, then forming a solid model from the casing in its last-named reverse position, applying a resilient coating to the rear surface of the model so as to provide a back member, and removing said casing and back member from said model, next filling said casing with a flexible material, securing said back member and casing together, and finally securing said back member to the woman's body.

2. The method as described in claim 1, and further including the step of cutting said model away so as to compensate for scars and the like on the woman's body.

3. The method of providing an artificial breast for a woman's body so as to provide a replacement for a breast that has been amputated, comprising the steps of forming a plaster of Paris mold from the remaining breast, next making a flexible casing from said mold so that the casing has the same configuration as the mold, removing the casing from the mold, reversing the casing,

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so as to turn the flexible casing inside out, then making a solid model from the casing in its reversed position, cutting away the rear surface of the model so as to compensate for scars and the like, next forming a back member that has the same configuration as the rear sculptured surface of the model, filling the casing with a resilient material, then securing the back member to the casing, and finally securing the back member to the woman's body.

4. The method of making an artificial breast to be used to replace a breast that has been removed from a woman's body, comprising the steps of forming a mold that has the same configuration as the remaining natural breast on the woman's body, then forming from said mold a casing having the same configuration as the mold, next turning said casing inside out so as to provide a casing having the same shape as the breast to be replaced, then forming a model from the casing in its last-named reversed position,

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applying a coating to the rear surface of the model so as to provide a back member, and removing said casing and back member from said model, next filling said casing with material, securing said back member and casing together, and finally securing said back member to the woman's body.

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